ESCOLA UNIVERSITARIA POLITECNICA
DE VILANOVA I LA GELTRU

I

BRANCA: TELECOMUNICACIO

COMPLEMENTARY SET OF EXERCISES : ENGLISH 1
(TELEC-INDUST.)

Departament de Projectes de l'Enginyeria.
Secció d'Anglès.

UPC

UNIVERSITAT POLITECNICA DE CATALUNYA

COMPLEMENTARY SET OF EXERCISES : ENGLISH 1

(TELEC-INDUST.)

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REVISION OF THE SIMPLE PAST AND THE FUTURE TENSE.

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UNIT 3.- SPACE ORDER IN PHYSICAL DESCRIPTION.

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a university → és una semivocal o semiconsonant

an umbrella

PHONETIC SYMBOLS

UNIT 1

19.10.94

The phonetic symbols used throughout are listed below with words which illustrate the sounds they represent:

VOWELS (12 vowel phonetics { long vowels \:\ short vowels \ \

i:	see, sea, people
i	sit, Monday, golly, marriage, fountain
e	set, many, bread
æ	man, band
ɑ:=ɑ:	father, grass, star, laugh, clerk (Br.E.)
/ɒ/ ɔ	hot, want, cough
ɔ:	saw, corn, course, daughter, door
u	put, shook, should
u:	soon, shoe, chew, you, to, two, too
ʌ	cup, son, enough, sun, up
/3:/ ə:	shirt, curl, work, Berlin, early, journey
ə (shwa)	attach, Edna, economy, brother, tailor, famous, opus

Només síl·labes àtones

golly : ostras!
set : preparar
clerk : oficinista
cough : tossir
course : assignatura, curs
shook : remoure alguna cosa violentment
chew : mastegar
opus : obra
attach : unir \ curl : arrissar

DIPHTHONGS (two vowel sounds together)

ei	pay, wait, chase, feign
əu	so, sew, sow
ai	buy, fly, slide
au	cow, shout (cridar)
ɔi	toy, voice
iə	cheer, fear
/eə/ ɛə	stair, there, fare
uə	sure, poor, tour

chase : caçar, anar rera algú
sew : cosir \ sow : sembrar
slide : diapositiva, transparència — relliscarse
cheer : brindar \ fear : po
fare : preu, taxa.
feign : fingir

CONSONANTS

p	pin, paper, tap
b	butter, rubber, tub
t	tail, matter, pat
d	dog, lady, bad
k	car, king, package, baker, luck
g	girl, lager, bag
f	four, Philip, bluffed, elephant, stuff, cough
v	vein, invent, above
θ	thirst, something, both, think
ð	them, bother, with
sorda → s	say, cider, Chaucer, passing, loss, voice
(casa) sonora → z	zest, busy, choose, is
ʃ	share, bashful, mash, she
jo ʒ	measure, rouge
tʃ	church, patchy, picture, future
jutge dʒ	John, magic, badge, page
m	money, Mummy, sum
n	near, pneumonia, mnemonic, funny, sun
seguit de ŋ < k, g	singer, bunker, pink, thing
h	hair, who, behave
l	learn, caller, bill, feel (sentir)
r	red, worry, very
semivowels / semiconsonants { j	you, university, universal
w	wait, beware, water

beware : anar en compte

pin : insignia \ tap:aixeta \ tub : banyera
tail : cua \ matter : matèria \ pat : donar cops suaus
lager : tipus cervesa
bluffed : fanfarronada
stuff : cosa
staff : personal d'un lloc
vein : vena
above : per sobre dels nostres caps
bother : molestar algú
cider : sidra \ loss : pèrdua
zest : brunzit
share : compartir \ bashful = tímid
mash : aplastar, triturar patates
rouge : vermell \ measure : mesurar
patchy : desigual \ badge : tira dels capitans dels equips
sum : suma
mnemonic : mnemotècnic
bunker : arca, forat a la sorra
behave :
caller : visitador
bill : rebut
worry : preocupació

spark:
melt:

EXERCISES.

1) Put all the verbs in brackets in the past tense:

a) "In 1870 a German engineer called Nikolaus Otto (design) designed the first internal combustion engine. The first motor car that used Otto's engine (be) was made in 1875. Engineers in many countries (try) tried to invent other kinds of engine.

Otto's engine (produce) produced power by burning fuel & air. A mixture of petrol & air (be) was compressed and then (explode) exploded by a spark. This explosion (drive) drove a piston in the cylinder.

Diesel engines (can) could weigh a lot more than petrol engines but they (have) had no electrical system or carburettor and they (need) needed heavier oil."

b) "An American, Edison, (invent) invented the first small electrical lamp. He (need to) needed to use a thin wire for his lamp, and he (try) tried to make one; but he (have) had a lot of trouble. Thin wires easily melt if they are made of copper. He (decide) decided to use carbon because it does not melt. He (try) tried cotton and hundreds of other materials to make his thin piece of carbon. But at first all of them (break) broke. They (be) were too thin and weak. They (have to) had to shine brightly. Thick pieces do not have a high resistance. So they (not get) not got hot enough and they (give) gave no light. Edison (not stop) not stoped trying, and he (make) made his first lamp though sometimes he (think) thought that (there is) there was no solution for his problem."

2) Make questions for all the bits underlined:

METEORITES.

"In June 1908 (1)an enormous explosion ocurred in Siberia. People many miles away could hear and see (2)the explosion, and it knocked men and animals over and broke (3)windows in places as far as three hundred miles away. It was like (4)a hydrogen bomb, but of course there were no hydrogen bombs in those days. Years later men went (5)into the Siberian forest (6)to find out the cause of the explosion. They found (7)nothing but a kind of lake and a great number of burnt and broken trees. In a radius of twenty miles from the centre of the explosion over an area of 800 square miles, (8)the blast destroyed (9)everything. There probably were not many men (11)because it was in the middle of the enormous Siberian forest. They could see no trees at all.

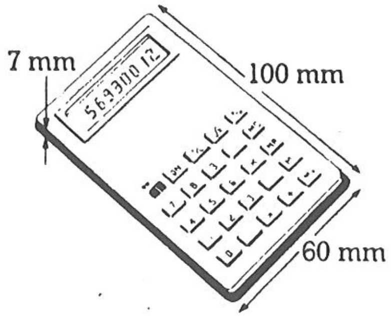
"(12)Just before the explosion, people saw (13)a ball of fire and heard a loud noise. It was a very large meteorite, a piece of rock from another planet or asteroid."

UNIT 2

18.11.94

Dimensions.

1.- Describe these objects. Use the words ***long, wide, high*** and ***length, width, height*** as in the example given:



ex: How | long | is the calculator?
wide
high

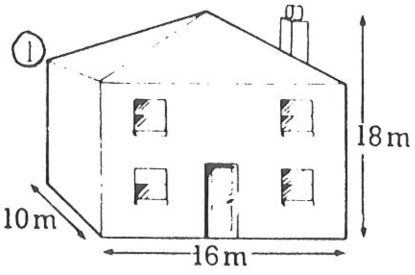
The calculator is 100 mm long,
60mm wide and 7 mm high.

ex: What is the | length | of the calculator?
width
height

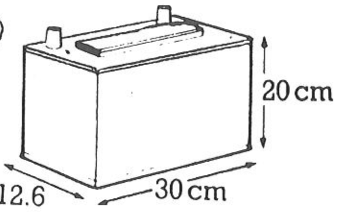
a) The calculator has a length of 100mm
width of 60mm
height of 7mm

b) The length of the calculator is 100mm
width 60mm
height 7mm

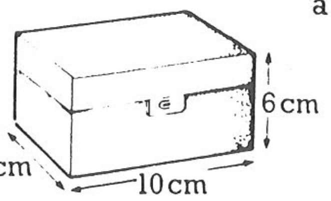
c) The calculator is 100mm in length
60mm in width
7mm in height

①


a house

②


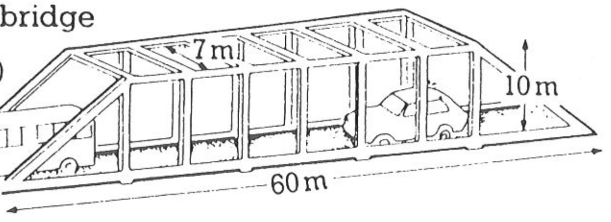
a battery

③


a box

1. The house has a length of 16 m
width of 10m
height of 18m

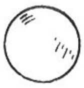
a bridge

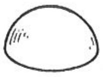
④


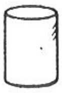
Dimensions in physical description: SHAPES.

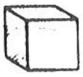
1.- **Complete these:**

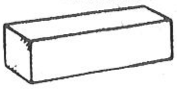
Cylindrical = shaped like a cylinder
Cubic = shaped like a cube
Conical = shaped like a cone
Spherical = shaped like a sphere

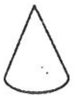

a sphere


a hemisphere


a cylinder


a cube


a rectangular prism

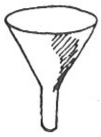

a cone

2.- **Now** describe the shapes of these objects:

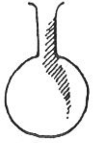
Example: A ball is spherical in shape.

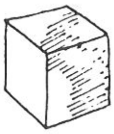
a ball

a test-tube


a funnel

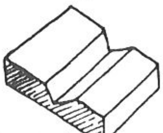
flascó


a flask


a salt crystal

A flask is spherical in shape
A salt crystal is cubic in shape
A test-tube is cylindrical in shape

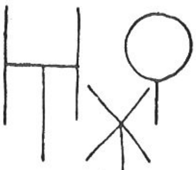
This groove is V-shaped.


a groove
solc \ ranura

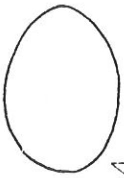
This aerial is H-shaped.

This aerial is X-shaped.

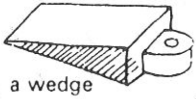
This aerial is O-shaped.


aerials

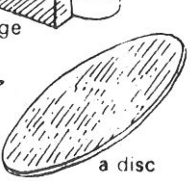
These objects are used to describe shapes:

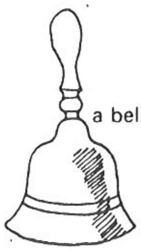

an egg

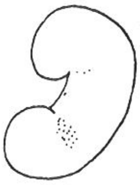
falca \ cuña


a wedge

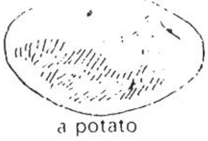
a star

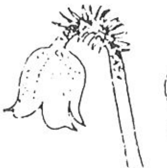

a disc


a bell


a kidney
ronyo

3.- Describe the shapes of the following:

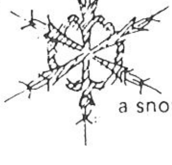

a potato

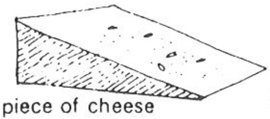

this flower

mongeta

a bean

a blood-cell


a snowflake


this piece of cheese

A potato is egg-shaped
A piece of cheese is wedge-shaped
This flower is bell-shaped
A bean is shapped like a kidney
A blood-cell is disc-shaped
A snowflake is star-shaped

for \ nom
to \ verb
too \ adjectiu
nom
cases : maletes
parcel : paquet

3) The Antarctic is cold enough for penguins to live in
The Sahara Desert is too big for people to visit in one day
Mount Everest is too high for flowers live in
The Red Sea is too salty for fresh water fish to live in
The River Nile isn't narrow enough for people to swim across
The Amazonian jungle is too damp for wheat to grow up
China is temperature enough for tee plants to to grow up
The Nile valley is dry enough for camels
Catalunya is warm enough for northern Europe people to visit during the winter
Vilanova University is too far for Barcelona's students and big, to be visited on one day.

to be visited : visitar alguna cosa.
to visit a musseum.

25.11.94.

WAYS TO EXPRESS QUANTITY: TOO & ENOUGH.

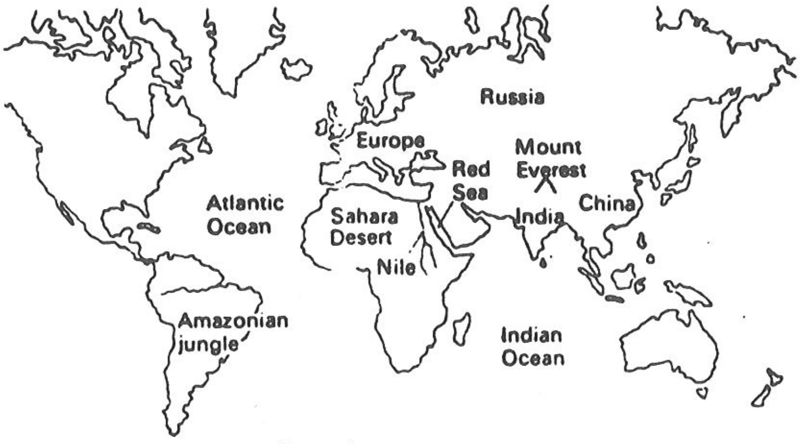
1) Put ENOUGH in the following:

1.- The train isn't going quickly.↓
2.- There are↓diskets in the packet.
3.- He can't speak English well.↓
4.- That book on Electronics isn't good.↓
5.- I think there are↓English dictionaries in the library.
6.- That student works hard.↓
7.- I can't buy that PC. It is not cheap.↓
8.- I haven't got↓money to buy that PC.
9.- There aren't↓chairs for everybody in this classroom.
10.- We couldn't finish the exercise. We didn't have↓time.

2) Put FOR, TO, TOO in the following:

1.- This book is too big for my pocket.
2.- This book is too big to go in my pocket.
3.- My grandfather is too old to walk very far.
4.- Are these cases strong enough for the long journey?
5.- This cupboard isn't big enough to hold all my things.
6.- This parcel is too big to be sen~~d~~t by post.
7.- Is Peter old enough to drive a car?
8.- These books are too expensive for me.

3) Look at the map and write ten sentences like these examples with *too / enough* and *for* (+ noun) or *to* (+ verb) using these words.



examples:

Europe is *too cold for* tea plants.
Parts of India are *warm enough to grow tea in*.

damp : humit
salty : salat
fertile : fertil
temperate : temperat
wheat : blat de moro
fresh water : aigua dolça

			penguins ✓
			flowers ✓
the Antarctic ✓	cold ✓		camels ✓
the Sahara Desert ✓	warm ✓		tea plants ✓
Mount Everest ✓	hot	for	bananas
the Atlantic Ocean	dry ✓		apples
the Red Sea ✓	damp ✓		people ✓
Russia	deep		fresh water fish ✓
the River Nile ✓	big ✓		wheat ✓
the Nile valley ✓	wide		
the Amazonian jungle ✓	narrow ✓		walk across ✓
Northern Europe ✓	salty ✓		live in (or on) ✓
China ✓	fertile		~~visit~~ in one day ✓ be visited
etc.	infertile	to	grow many plants in
	temperate ✓		drink
	high ✓		irrigate a large area of land
			support a large population
			swim across ✓

to sink : enfonsar-se

11. Look at these examples:

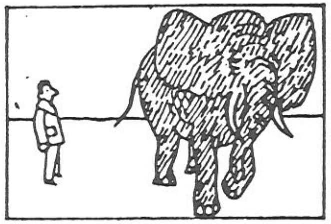
Why can't you write your name in this rectangle? ☐
Answer: Because it's *too small to write in.*

Why can you write it here? ☐

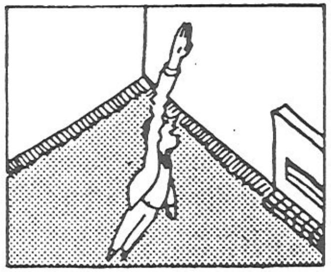
Answer: Because it's *big enough to write in.*

Now answer these questions (using the words in *italics*):
cursiva

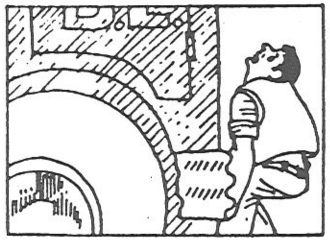
Both TOO/ENOUGH



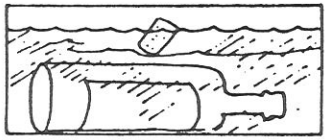
a) Why can't you *put* an elephant *in your pocket?* (small/big)
Because it's too big to put in
Because it's not small enough to put in



b) Why can't you *touch* the ceiling? (high/low)
Because it's too high to touch
Because it isn't low enough to touch

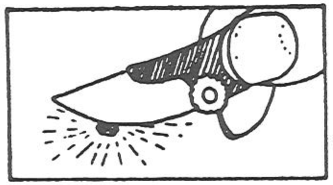


c) Why can't you *lift* a lorry? (heavy/light)
Because it's too heavy to lift
Because it isn't light enough to lift

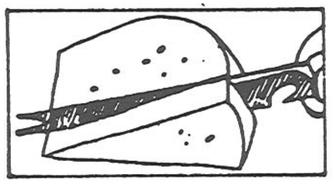


d) Why does a cork *float?* (heavy/light)
Because it's light enough to float
Because it's not too heavy to float

e) Why can't the lorry *go down the street?* (wide/narrow)
Because it's too narraw to go down
Because it's not wide enough to go down

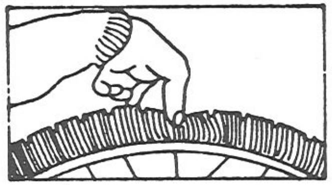


f) Why can't you *cut* a diamond? (hard/soft)
Because it's too hard to cut
Because it's not soft enough to cut

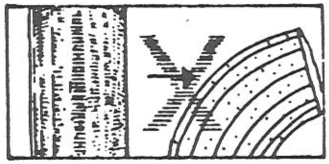


g) Why can you *cut* cheese? (hard/soft)
Because it's soft enough to cut
Because it's too hard to cut.

Choose TOO or ENOUGH

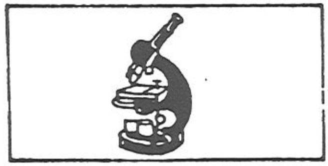


h) Why can you *bend* rubber? (flexible)
Because it's flexable enough to bend

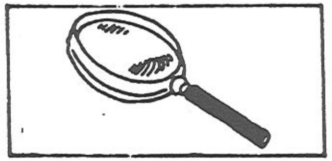


ciment, formigó

i) Why can't you *bend* concrete? (rigid)
Because it's too rigid to bend



j) Why can you *see bacteria* with a microscope? (powerful) (potent)
Because it's powerful enough to see bacteria with



k) Why can't you *see bacteria with* a magnifying glass? (weak)
Because it's too weak to see bacteria with

l) Why can't you *see through* paper? (opaque)
Because it's too opaqe to see through

to bend : plegar
weak : dèbil

against : contra, al costat de

beneath = below : sota

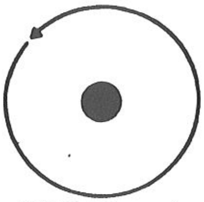
beyond: més alla de

towards : cap a

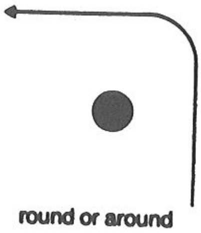
— Prepositions which express relationships in space

The most important are:

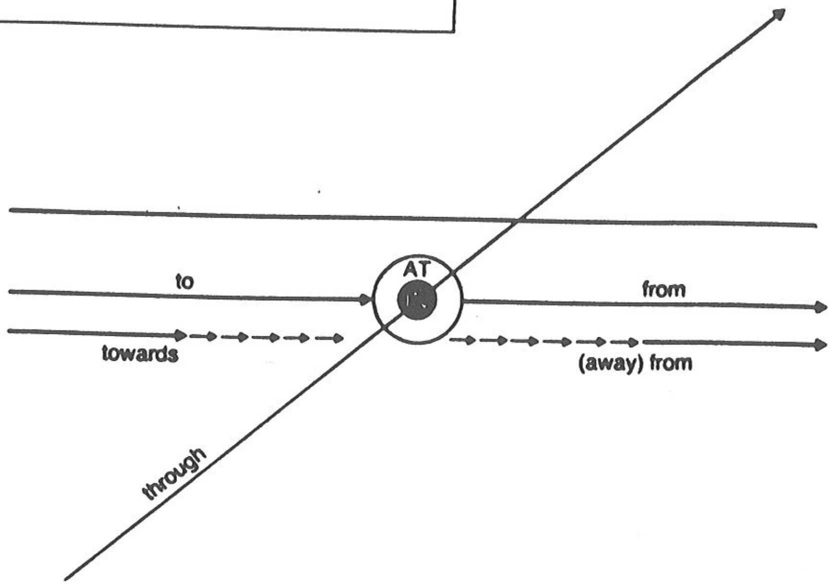
above across against along among around
at behind below beneath beside between
beyond by down from in in front of inside into
near next to off on on to opposite out of outside
over round through to towards under
up

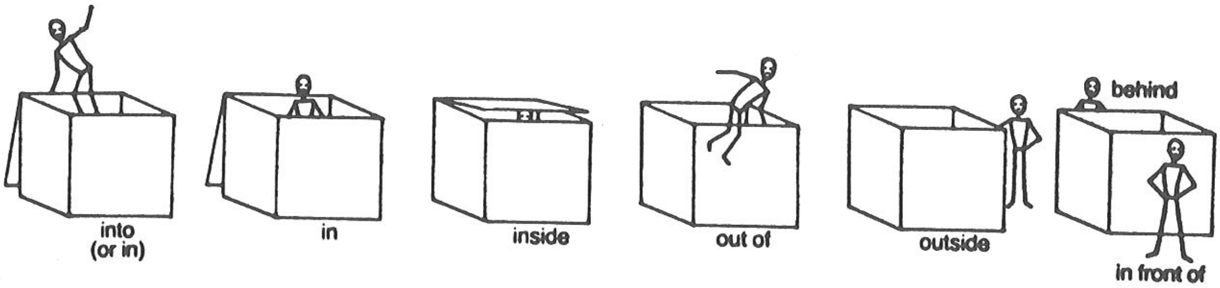


round or around

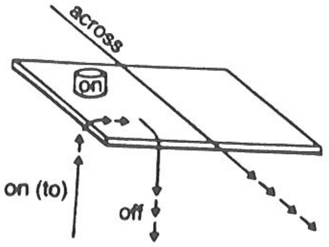


round or around





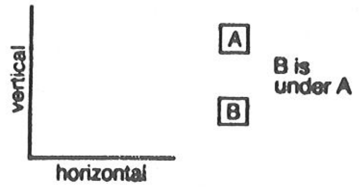
- **In, into** *or* **inside?**
Both **in** and **inside** can be used for movement or rest; **into** refers only to movement. Think of **in** as the more general word, and of **into/inside** as more specific (definite), emphasizing the movement (**into**) and the location (**inside**):
e.g. *A in B*: Don't put all your eggs in one basket. (proverb)
A into B: We drove into Spain (=clearly from one country into another. We drove *in* Spain=When we were in Spain, we travelled by car.)*



13.1.95.

- **Above and below, over and under.** → The meaning of these pairs of prepositions is very similar, and in some cases you can use one or the other. The difference between them is:

Over and under describe a vertical relationship:

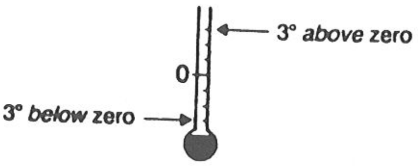


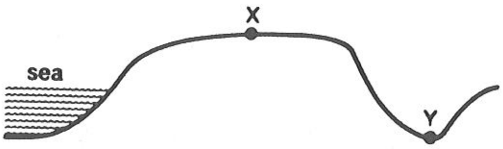
Above and below describe the relative position of two things when one is higher/lower than another:

House B is below house A

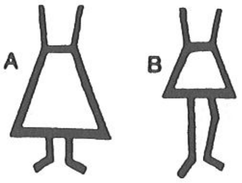
Further examples:

BELOW
ABOVE





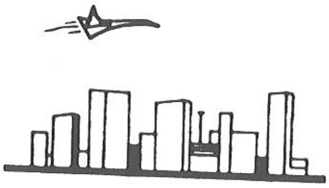
X is *above* sea level; Y is *below* level



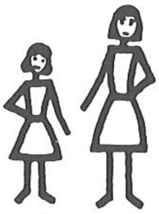
Skirt A is *below* the knee.
Skirt B is *above* the knee.

OVER
UNDER

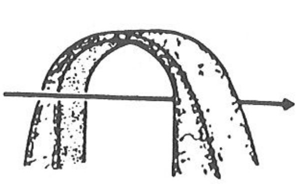
leaning *over* the wall



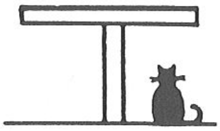
flying *over* a city



under 8 *over* 24

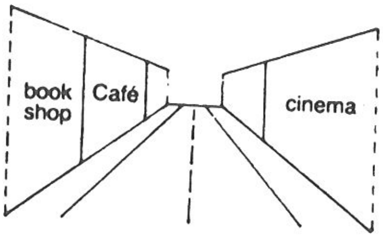


under the bridge



under the table

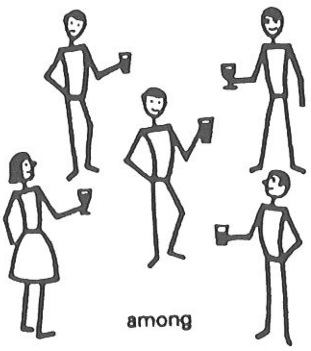
- Across, opposite, beside. →



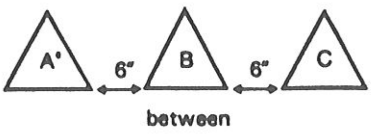
The cinema is	across the road from opposite	the cafe.
The cafe is	*next to* *beside*	the bookshop.

- Between and among

↳



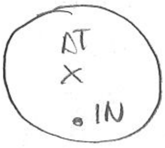
It's nice to be *among* friends.
plural.)
(the word after *among* is always



Triangle B is situated *between* A and C. It is exactly halfway *between* them.

hose: mànega
to cooled: refredar
heater fan: ventilador de la calefacció
to blow: bufar
pipes: tubs, canonades
local exchange: central local telefònica
beams: emetre (senyal)
earth aerial: antena terrestre
to place: situar
edge: canto de la roda

At the centre: at the wheel centre ↓ equidistà de qualsevol direcció
In the centre: in the city centre ↓ als voltants



to deflected: desviada
needle: agulla de l'ampermetre.

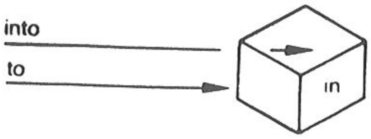
20.1.95

Prepositions

①

in/into/to

In, into, to – what is the difference?
Use the drawing to decide. Then complete the sentences.



a The water is cooled in the radiator.
b The bottom hose carries the water from the radiator to the engine.
c The heater fan blows hot air into the car.
d When the thermostat is closed, the water stays in the engine.
e The pipes in the radiator are made of copper.
f When the thermostat is open, the water flows into the radiator.
g The top hose takes the water {to / into} the radiator.

②

Prepositions

TO, IN, FROM, BY

Complete this text with prepositions:

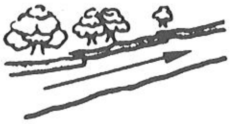
A satellite phone call goes from your telephone to the local exchange and is sent to the international exchange. from here it is transmitted by cable to the Telecom Tower in London and then by microwave to the earth station. The earth aerial beams the signal to the satellite, which is positioned 35,800 km from the equator.

③

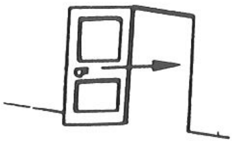
Through/along

We can say:
along a pipe, OR *through a pipe*

but we say



along a river (not *through* a river)



through a door (not *along* a door)

Put *along* or *through* with these.

Along a road
Along\Through a tunnel
Along\Through a radiator
Along a track (pista montanya, disc)
Through a valve
Along\Through a groove (escletxa)
Through a hole

④

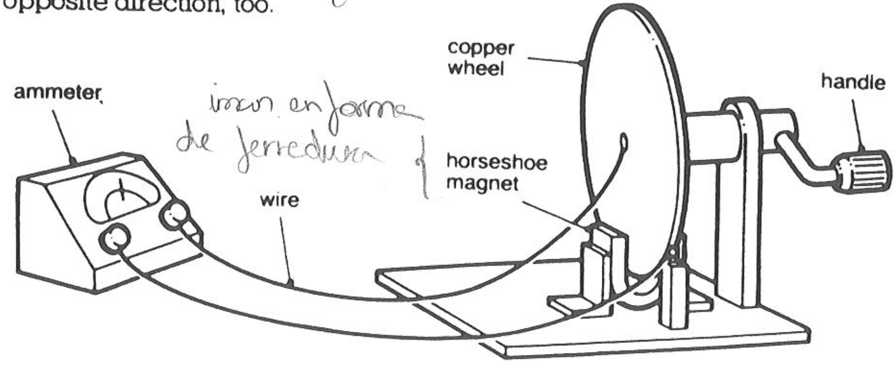
Prepositions

Complete the paragraph using the correct prepositions:
of; at; in; to; between; by.

In one of Faraday's experiments, he placed a copper wheel between the poles of a horseshoe magnet. At the centre and in → dins del canto de la roda the edge of the wheel there were electrical contacts. These were connected to the terminals of an ammeter. When the wheel rotated between the poles of the magnet, an electric current was shown in/by the ammeter. When the wheel was rotated in the opposite direction, the needle in/of the ammeter was deflected in the opposite direction, too.

ammeter: amperímetre

by: mitjançant



iman en forma de ferradura

link : enllaç
likely : probable
shipping : pesca marítima
to pull fresh : entrar aire

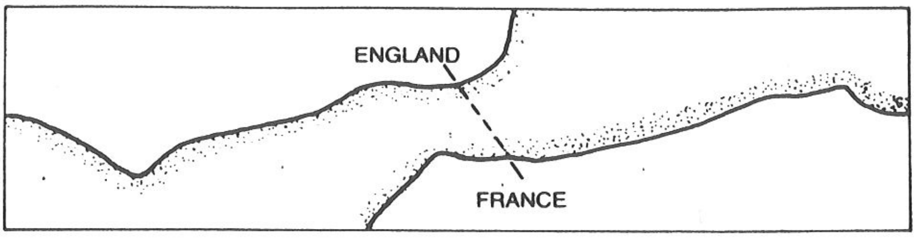
⑤

Prepositions

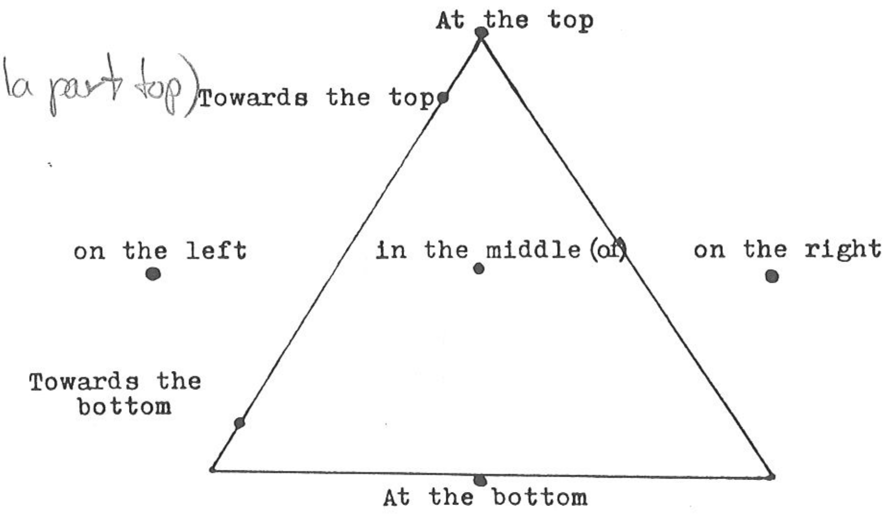
Complete this paragraph using the correct preposition:

under; across; between; behind; at; along;
through; for; of.

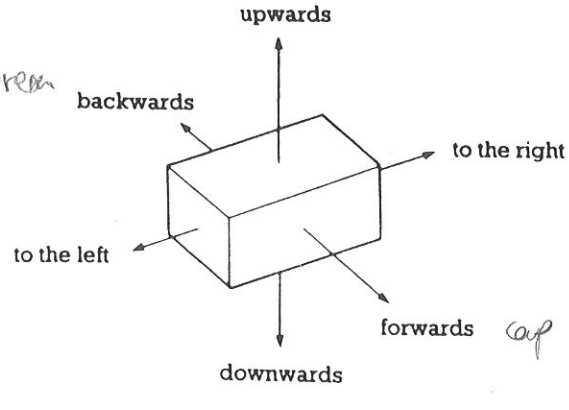
Since the 19th century there have been ideas for building some kind of link between England and France. A bridge across the Channel (over) would be much cheaper, but would interfere with shipping, so a tunnel under the water is more likely. But a tunnel presents a problem of ventilation. Some plans have ventilation chimneys at various points along\ through the tunnel. One of the most interesting ideas is that high-speed trains going through (along) the tunnel would pull fresh air behind them.



Here are some useful expressions to indicate position and movement.



(cap a la part top)



cap a endarrera

cap a endavant.

insulating material : material aïllant (adj)

insulator : aïllant (nom)

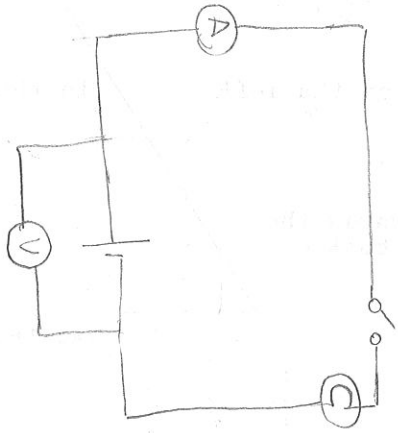
however : tot i així

gap : { distància de salt (en un circuit)
      { buit, forat (en un altre context)

nichrome : nicromi

dimmer : més pàlida, dèbil

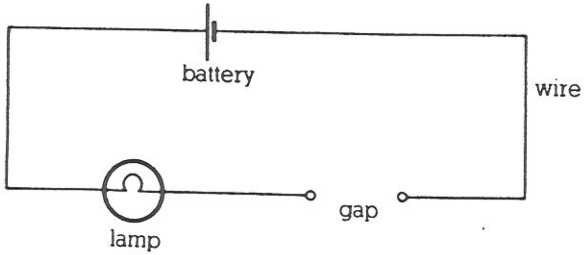
Therefore : per tant



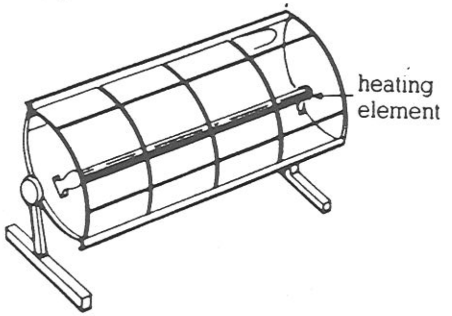
Electricity

Copper is a good conductor of electricity. If a copper wire is connected to a battery, an electric current flows in the wire. However, a current does not flow if you connect a piece of plastic to the battery. Because plastic is an insulating material, it resists the flow of electricity. Bad conductors of electricity have a high resistance.

Look at this diagram. It shows an electric circuit.

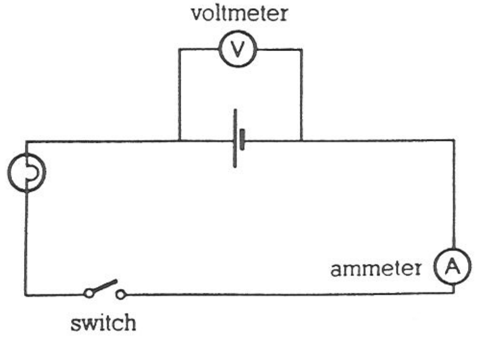


Place a piece of copper wire across the gap. The lamp lights. Current flows around the circuit. After removing the copper, place a piece of nichrome across the gap. The lamp is dimmer. Nichrome has a high resistance and the current does not flow easily.



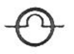
This fire uses electricity for heating. The heating element is made of nichrome which is a bad conductor of electricity. It has a high resistance and current cannot flow easily. Therefore, the current passing through the element generates heat.

Practice 2

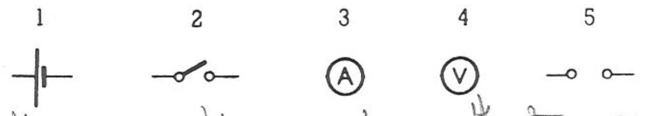


Make statements about the symbols.
For example:

This is the symbol used for a lamp in an electric circuit diagram.



lamp



battery switch ammeter voltmeter gap

Fill in the blanks using: across, at the bottom, top, in the middle, on the left, on the right.

③
- (An ammeter is used for measuring electric current.
A voltmeter is used for measuring electrical energy.)
Now look at the circuit diagram on page 34 and ~~read~~ this:
The battery is in the middle of the diagram at the top and a voltmeter is connected across it. The lamp is on the, left towards the top, and the ammeter is on the right, towards the bottom. The switch is positioned at the bottom and on the left

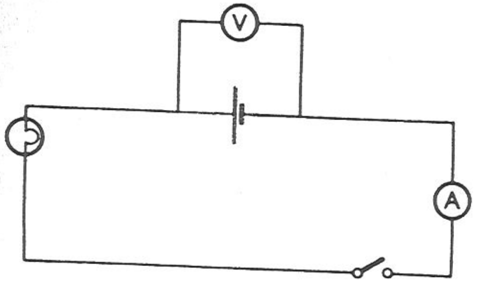
④
- Now read this and draw the circuit diagram which it describes
The battery is in the middle of the diagram at the bottom and a voltmeter is connected across it. On the right of the diagram is a lamp which is positioned towards the top. The ammeter is on the left and in the middle and the switch is at the top on the right.

outside insulation: aillament exterior
replace for: canviar, substituir
replace: tornar a posar
overtighten: apretar massa (sobreapretar)
tight: molt apretat

Prep + V-ing SEMPRE

Practice 3

Look at this circuit diagram and complete the description.



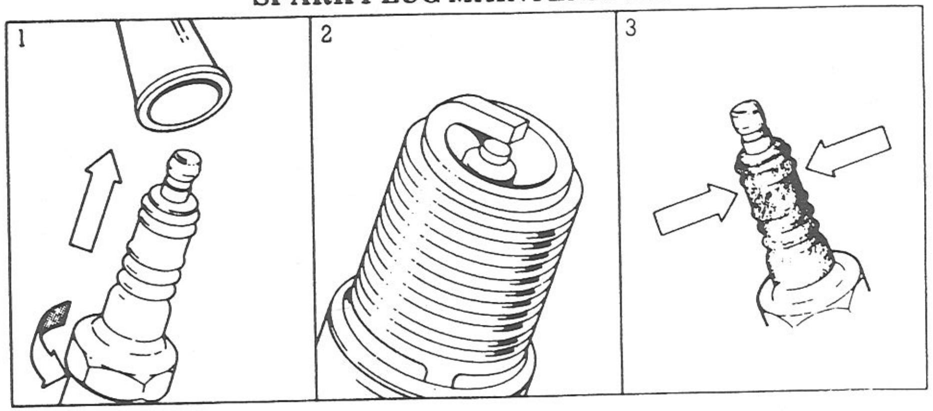
The battery ....is.... in the ..middle.. of the .diagram.. at the ..top..... and a .valt meter. is conected across it. The ammeter. is in middle..... on... the... right. The lamp is on. the left. towards. the top. The switch . is at the
botton towards right (or on the right)

Resistance (R) is measured in ohms (Ω)
Current (I) is measured in amps (A)
Voltage (V) is measured in volts (V)

spark plug } bujía
plug

To remove : treure
plug lead : caputxa bujía
unscrew : desenroscar
paper esmery : esmeril (paper de vidre)

SPARK PLUG MAINTENANCE



First remove the plug lead. Then unscrew the spark plug. (1) Check the condition of the electrodes. (2) Clean them with emery paper. Measure and adjust the gap between them. Clean any oil or grease from the outside insulation. (3) (Use petrol or Kerosene.) Replace the spark plug in the engine. (Do not overtighten.) Replace the lead. Repeat this for all plugs. Test the engine.

Look at this example.

Before removing the spark plug, remove the lead
After removing the lead, remove the spark plug

Now complete these in the same way.

1 After checking the condition of the electrodes, clean them with emery paper
2 Before measuring and adjusting the gap between the electrodes, clean them with emery paper.....
3 After cleaning the electrodes with emery paper, measured and ajust the gap
4 After cleaning... the outside insulation, replace the spark. between them
5 Before .replacing...... the lead, replace the spark
6 After replacing the lead and repeating this for all plugs..., test the engine

CUSHION: coixí
source: font
Rough: agitat
Nowadays: avui en dia
lift up: aixecar
edge: canto
coffee tin: llauna de cafè
bottom: fons
fan: ventilador
ratio: raó (matemàticament)
smooth: pla
rubber skirt: goma, cortina\vora, part baixa
inflatable: inflable
to tear: trencar-se
jet: propulsió, xorro (d'aire)
friction: fregament
to slow down: fer-se més lent, a més a poc a poc
concrete: formigó
track: via
linear: lineal
induction: inducció
to pick up: agafar (en aquest cas força)
power potència
rail: carril
beside: aprop
loads: càrrega

27.1.95

SPACE ORDER IN PHYSICAL DESCRIPTION: PREPOSITIONS.

1) Read the text and decide which preposition *is* right in each case:

AIR CUSHION TRANSPORT. [source: Technical English Reader 1, pp. 24-29]

To go (1) across the English Channel, that is, to go across the twenty-two miles that separate England from France, people need to take their cars. Some passengers put their cars on a plane and fly across with them, but that is expensive. Others drive their cars onto large ferries. This is cheap, but the boats are slow and sometimes the sea is rough. Nowadays, many travellers prefer to travel by hovercraft.

A hovercraft is a kind of boat, but it does not float (2) on water. It floats on a cushion of air, and it can travel on water or land. The new hovercraft in the Channel can carry two hundred and fifty passengers and thirty cars at sixty m.p.h., a fast speed for a boat. It can travel (3) from England to France in forty minutes (the ferryboats need almost three hours to cover that distance) and it is more comfortable because it does not go up and (4) down with the waves.

But how does a hovercraft work? Air cushion vehicles are not a new idea. But there was a problem. A great volume of air was necessary to lift up a vehicle with a large base, and of course a large power unit was necessary, too. This was not economical.

Then in 1953 Christopher Cockerell, a British electronics engineer, had a new idea about the air cushion. Why not have the air cushion only (5) round the edge of the vehicle bottom? In an experiment he took a coffee tin and cut the bottom out. Inside the tin he fixed a small coffee tin with a bottom. Then he connected the apparatus to a small fan. The air passed through the gap (6) between the inside of the large tin and the outside of the small one. The pressure of air round the edge of the tins was strong; the power to weight ratio was right.

Cockerell made a model hovercraft and a company began to experiment with large ones. But there was another problem. They made a prototype hovercraft and it travelled well (7) over smooth surfaces. But over rough surfaces and small waves it travelled very badly. It went up and down, or turned over. It was necessary to find a way to lift the vehicle high off the surface.

The answer was the flexible rubber skirt. This is usually inflatable. The jet of air (8) from the fan comes out just inside it. With this the hovercraft can "fly" over waves or small obstacles and it does not go up and down or turn over. But the skirt must be strong enough or it can break and tear on hard obstacles.

The principle of air cushion has many other possibilities. There is the "hovertrain", for example. With an air cushion (9) under it there is no friction to slow the train down. It can travel very fast —300 m.p.h. to be exact. A British company built a prototype some time ago. It runs on an elevated concrete track with a linear induction motor. The train has no driver and picks up power from a rail beside the track. Engineers can also use the air cushion principle (10) for transporting very heavy loads over not very strong bridges or roads.

1.- a) across b) through
2.- a) in b) on
3.- a) off b) from
4.- a) down b) off
5.- a) round b) through
6.- a) among b) between
7.- a) over b) above
8.- a) of b) from
9.- a) under b) below
10.- a) to b) for

2) Look at these statements and choose the right completion:

1.- A hovercraft can travel

a) only on water
b) only on land
[✓ c) on water and land]
d) only on ferries

2.- Cockerell

[✓ a) built a prototype hovercraft]
b) floated on a cushion
c) did an experiment with air cushions
d) made two tins of coffee

3.- It was necessary to put a flexible skirt on the hovercraft

a) because it was not comfortable
[✓ b) so that it could travel over rough surfaces]
c) because it did not go up and down
d) because it was inflatable

4.- A hovertrain

a) floats ~~on~~ over the land
[✓ b) runs on a cushion of air]
c) does not have a track
d) does not have a motor

estaria bé amb over

10.3.95

PRESENT PERFECT TENSE

Present perfect tense sentences usually don't mention exact times of actions. The simple past tense is most often used to mention or imply an exact time of an action.

He *went* to Boston yesterday. (Past)
He *has gone* to Boston several times. (Present Perfect)

I *was* here last night. (Past)
I *have been* here before. (Present Perfect)

Supply either the simple past tense or the present perfect tense form as required by the meaning.

1. I went (go) to bed late last night; I have done (do) this many times lately.
   (I went to bed late last night; I have done this many times lately.)
2. Mr. Ashe went (go) to Chicago last week.
3. I have read (read) that book several times.
4. I first read (read) it while I was on my vacation last summer.
5. I have been (be) in Norfolk many times.
6. Mr. Dale has had (have) little experience in teaching that subject.
7. Billy fell (fall) as he was crossing the street.
8. I saw (see) Diane a few days ago.
9. When the bell rang, Wade jumped (jump) from his seat and ran (run) from the room.
10. I have tried (try) that restaurant again and again, but I do not like the food there.
11. When I was young, I often went (go) fishing with my father.
12. I have completed (complete) writing my exercise at last.
13. You started (start) to study English last winter. → C.TEMPS ⇒ PAST
14. The day before yesterday, we had (have) a bad storm.
15. I hear that you have given (give) up the idea of studying Russian.
16. I have never been (be) to Italy.
17. It was (be) very cold yesterday.
18. We have learnt (learn) many new words in this course.
19. The First World War began (begin) in 1914 and ended (end) in 1918.
20. Rebecca says that she has lost (lose) her purse.

purse : bossa
either : qualsevol
however : no obstant
clerk : oficinista
former : anterior
steadily : constantment
further : més lluny
lately : últimament

ago mai PRESENT PERFECT

pot anar en els ambdos casos,
at last ⇔ just

PRESENT PERFECT TENSE

The present perfect tense also describes actions that began in the past and have continued up to the present.

He has worked here for two years. (He is still working here.)
They have lived here since June. (They are still living here.)

Note the difference in meaning between the following sentences:

He has worked here for two years. (He is still working here.)
He worked here for two years. (. . . but he doesn't work here any-more.)

Supply either the simple past tense or the present perfect tense form as required by the meaning.

1. I moved (move) to Pine Street in March; I have lived (live) there for three months now.
   (I moved to Pine Street in March; I have lived there for three months now.)
2. We lived (live) in Washington from 1975 to 1980.
3. Before he came to the United States, Emil worked (work) as a carpenter.
4. Since coming here, however, he has worked (work) as a clerk.
5. My former teacher was Miss Coe. I studied (study) with her for one year.
6. My present teacher is Mr. Ming. I have studied (study) with him for six months.
7. Juanita Chavez speaks English well because she 's spoken (speak) English all her life.
8. Earl worked (work) hard all his life. (He is dead.)
9. Eric has worked (work) hard all his life. (He is alive.)
10. Ms. Pate left (leave) New York last month and has worked (work) in Pittsburgh since then.
11. Gail, who is now in the fourth grade, has studied (study) English for two years.
    studied
12. I myself have studied (study) English steadily since 1980.
13. Henry, who is now in the hospital, has been (be) there for several weeks.
14. When I saw her, Linda felt (feel) ill.
15. We bought (buy) this car two years ago and have driven (drive) it 5,000 miles since then.
16. Up to the present time, I have never been (be) further west than St. Louis, Missouri.

UNIT 4

ALREADY: ja
YET: encara, ja
STILL: encara

3.3.95

already, yet

Put **already** or **yet** in the correct place in the sentences below:

1 Your friends are in the hall. already
2 The 8 o'clock train hasn't come. yet
3 It's only 10 o'clock but they've prepared lunch. already
4 Has the boss come back? yet
5 Haven't you written those letters? yet
6 My mother has bought all her Christmas presents. already

still

Complete the sentences in the same way as the examples above:

1 Kay was a good chess player when she was young. Nothing has changed. She's still a good player.
2 Years ago Kim liked cowboy films. He hasn't changed. He 's still cowboy films.
3 When he was a boy, Alan was a good photographer. He hasn't changed. He 's still a good photographer.
4 Years ago Chris painted very well. Nothing has changed. She 's still very well.

b Look at these sentences:

He **still doesn't** play.
I **still haven't** seen her.
Sam **still can't** type.

Still goes before a negative auxiliary (**don't**, **hasn't**).

Complete these sentences with **still** and a suitable negative auxiliary:

e.g. I didn't read the newspaper this morning, and I **still haven't** read it.
1 Sheila didn't work hard at school, and she ______ work hard.
2 Kay couldn't ski well last winter, and she ______ ski well.
3 I didn't see the exhibition last month, and in fact I ______ seen it.
4 When they were young the children didn't like the dark, and they ______ like it.

1. still doesn't
2. still can't
3. still haven't
4. still don't

Put in *still*, *yet* or *already*.

1. 'Haven't you finished ...yet... ?'
2. 'No, I'm ..still...... working.'
3. 'When's Mary coming?' 'She's . already here.'
4. 'Are you ready?' 'No, I haven't done my packing ..yet........'
5. Ann's doing very well at school. She's already got three O Levels, and she's only 15.
6. 'What's the weather like?' 'It's still raining.'
7. 'Is it lunchtime?' 'Not , not. yet..'
8. 'Have you phoned Godfrey ..yet.......?' 'No, I'm going to do it this evening.'
9. Look at the time! It's already eight o'clock. We really must go.

mat : "felpudo"

brush : raspall cabell

Have you had lunch | yet ?

| already ?

3.3.95

1.- ALREADY, YET and STILL.

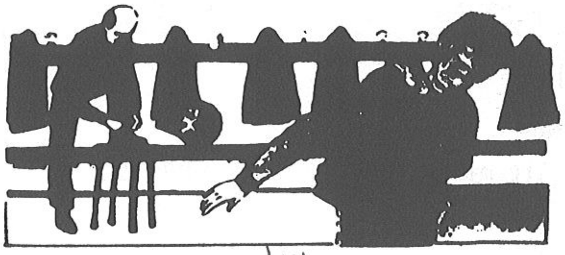
John's still in bed.
He hasn't got up yet.
Susan is already dressed.

The postman has already been.
Jane hasn't picked up her letters yet .
They are still on the mat.

Alice's taxi is already waiting in front of her house.
Alice isn't ready yet .
She is still in the bath.

'Have you had lunch yet ?'
'No, I'm still working. What about you?'
'I've already eaten.'

Peter and Ann are both 19.
Ann is still at school.
Peter is already married.
He hasn't got any children yet.



Jake is nearly 40, but he still plays football every Saturday.
His son Andy is not 15 yet , but he is already a good footballer, too.

2.- Fill in the blanks with ALREADY, YET and STILL.

1.- I don't want to go yet because it is too early.

2.- He's already a doctor. Imagine. He's only 22 years old!!. He's still a baby.

3.- John hasn't started his project yet ; Bob is still working on his and Mary has already finished hers.

4.- The library isn't open yet because it's only 3 o'clock. The librarian is still at home having lunch.

5.- Is he still sick? No, the doctor says he is already well. But he can't work yet .

6.- Are you still hungry? No, I've already eaten four hamburguers.

7.- Has it started yet ? No, they're still selling tickets.

8.- I still don't understand why you can't take the exam yet . You've already studied everything.

9.- She doesn't want to leave yet because she is still combing her hair.

10.- Do you still go to the French Institute? No, I don't go anymore. I've already finished.

11.- Do your parents still live in New York? Yes, but they are planning to move, although they still can't decide where.

temps continus : BE + V-ing

temps perfectes : HAVE + PAST PARTICIPLE

	TENSE	VERB	POSITIVE	QUESTION	NEGATIVE
1	PRESENT SIMPLE	She\agree	She's agrees	Does she agree?	She doesn't agree
2	PRESENT CONTINUOUS	He\leave	He's leaving	Is he leaving?	He isn't leaving
3	PAST SIMPLE	They\leave	They left	Did they leave?	They didn't leave
4	PAST CONTINUOUS	He\Shout	He was shouting	Was he shouting?	He wasn't shouting
5	PRESENT PERFECT SIMPLE	They\arrive	They have arrived Ells han arribat	Have they arrived?	They haven't arrived
6	PRESENT PERFECT CONTINUOUS	She\work Ella està treballant	She has been working	Has she been working?	She hasn't been working
7	PAST PERFECT SIMPLE	They\go	They had gone	Had they gone?	They hadn't gone
8	PAST PERFECT CONTINUOUS	They\sleep	They had been sleeping	Had they been sleeping?	They hadn't been sleeping
9	FUTURE SIMPLE	He\leave	He'll leave	Will he leave?	He won't leave
10	FUTURE CONTINUOUS	They\work\tomorrow	They'll be working tomorrow	Will they be working tomorrow?	They won't be working tomorrow
11	FUTURE PERFECT SIMPLE	They\leave\by tomorrow	They'll have left	Will they have left?	They won't have left.
12	FUTURE PERFECT CONTINUOUS	they\work\all day	They'll have been working all day	Will they have been working all day?	They won't have been working all day.

27.1.95

UNIT 4: Refreshing our memory. VERB TENSES.

PRESENT SIMPLE

- Quan es parle de veritats universals o cientifiques
  - The Earth goes around the son
- Quan es parle de fets que es realitzen cuotidianament en la vida
  - I often go to the library
- Experiments, no importa el temps
  - First I take, ..., second I put, ...

Tense check

Copy this table into your notebook and give an example of the positive, question, and negative of each tense:

	Tense	*Verb*	*Positive*	*Question*	*Negative*
1	Present Simple	she/agree	*She agrees*	*Does she agree?*	*She doesn't agree*
2	Present Continuous	he/leave	*He's leaving*		
3	Past Simple	they/leave			
4	Past Continuous	he/shout			
5	Present Perfect Simple	they/arrive			
6	Present Perfect Continuous	she/work			
7	Past Perfect Simple	they/go			
8	Past Perfect Continuous	they/sleep			
9	Future Simple	he/leave			
10	Future Continuous	they/work/ tomorrow			
11	Future Perfect Simple	they/leave/ by tomorrow			
12	Future Perfect Continuous	they/work/ all day			

1.-Present Simple / Present Continuous

-I (not watch) television every night I don't watch ...
-She (read) at the moment She's reading at ...
-(You listen) to the radio now? Are you listenning to the radio now?
- I'm sorry I can't talk to you now; I (go) now I'm going now
-The film (start) every night at eight o'clock starts
- (Peter and Jane work) in London at the moment? Are Peter and Jane working in ...?
-(you go) into the office every month? Do you go ...
- I (live) in Paris just now, but I (come) from Belgium I'm living in ..., but I come from.

though: encara, si be, tot i que
pane: vidre
lobster: llagosta
ages: edat
to spill: vessar
carpet: catifa.
wonder: preguntar-se, desitjar saber
ladder: rim

17.3.95.

PRESENT PERFECT \ PAST PERFECT \ SIMPLE PAST

③ For an event which is finished but still affects the present:
e.g. ⇒ I can't write because I've broken my arm.

④ For an event which has a result that can be seen in the present.
e.g: look at the mess (desastre) you've made

-The car isn't here today because Sheila (use) it. She generally (use) the bus, but the drivers are on strike. is using \ uses

-He (teach) in a language school, though he (work) in a factory at the moment because the school's on holiday. teaches \ is working

-I usually (work) at night, though I (have) a holiday at the moment. work \ am having

-You're very quiet. What (you think) about? are you thinking

-What (you think) about the new sports centre? do you think

-We usually (stay) home on Fridays, but we came out tonight because the children (have) a party. stay \ are having

-At what time (John meet) his girlfriend this afternoon? is John meeting

-My sister (get married) next month.- Is she? Who (she get married)? is getting married / is she getting married

-At what time (they open) the doors with the art exhibition this afternoon? Are they opening?

-At what time (they open) the doors with the art exhibition on Mondays? Do they open -?

-I (not belong) to any political party.I (not like) politics. I'm not belonging \ don't like

-My brother (stay) with my aunt at the moment until he (find) a place of his own. staying \ find

10.3.95

2..Present Perfect / Past Simple

- She (go) home three days ago went
- (you see) the film on TV last night? Did you see

-John (be) to Germany before has been

- (you hear) their new record? It's the best they've ever made. Have you heard

-I (never go) anywhere by plane. have never gone

-She (start) school in 1984. started

- I (not see) him yesterday. didn't see
- You (go) to London last year? -No, I (be) this year. Did you go \ has been

-(the children break) the window pane this morning?- No, they (break) it yesterday. Did they break \ broke

-(you, ever, eat) lobster?.-Well, I (eat) lobster last Christmas for the first time. Have you ever eaten \ ate

-(you write) to your friend in Australia? -Yes, I (write, just) to him. Have you written \ I have just written

-This is the first time he (drive) a car, isn't it? -Well, he (drive) one last week for a few minutes. has driven \ drove

-When (they, visit,last) you? -They (not visit) me for ages. did they last visit you? \ haven't visited

- How many times (you be) in love -Well, I (never, be) in love. have you been \ have never been

-Ann is on holiday. She (go) to Italy. When (she leave)? ~~went~~ has gone | did she leave?

3.-Present Perfect/ Past Perfect/ Simple Past?

** Look.Somebody ....(spill) milk on the carpet has spilled (encara es ren)
Well, it ....(not/ be) me. I............ (not/ do) it. wasn't \ didn't do
I wonder who it ....(be), then. was

**Did you hear about Ben? He ....(break) his leg. broke (no sabem si es ren, per tant les dues són possibles)
Really? How ....(that/ happen) ? did that happen?
He ....(fall) off a ladder. He ....(climb) ladders many times before but this time something happened... fell \ had climbed

* mati : present perfect
tarde : passat

dam : presa
rocketship : cohet
report : relat

to be able \ could \ can

RECORD : SINCE PRE. PERF

**There was a car by the side of the road. It ....(break) had broken down and the driver was trying to repair it, so we .... (stop) stopped to see if we .... (can) could help.

4.-Are the underlined parts of these sentences right or wrong? Correct the ones which are wrong.

EXAMPLE: Have you heard? Suzanne has got married: right
The Chinese ~~have invented~~ printing: *invented.*

1.Who has written the play *Hamlet*? : wrote
2.Aristotle has been a Greek philosopher : was \ has been
3.Ow. I've cut my finger, it's bleeding :
4.Look at George. He had a haircut : has had
5.My grandparents got married in Montserrat :
6.Einstein was the physicist who has developed the theory of relativity : developed
7.The computer has been down twice this week : (encara està espatllat) \ was (no està espatllat)
8.The company has built the dam five years ago : built

5.-Put the verbs in parentheses into the correct form:

1.Synthetic plastics (replace) have replaced many traditional materials since the phenol plastic Bakelite was developed in 1909.
2.Fleming (discover) discovered penicillin while he (work) worked \ was working with the staphilococcus bacteria.
3.In 1610 Galileo (prove) proved that Copernicus (be) had been correct when he (state) had stated in 1543 that the earth (move) moves on its axis.
4.Jules Verne, a nineteenth-century science-fiction writer, imagined that a rocketship (can fly)______ from the earth to the moon. could fly
5.Magellan guessed that the earth (be) was round.
6.Magellan proved that the earth (be) is round.
7.When Mendel's 1866 report was rediscovered in 1900, biologists (find) found that Mendel (make) had made many important discoveries concerning heredity.

24.3.95

6.- Past Simple and Past Perfect tenses using when, after, until and before:

Rewrite each of the sentences below using the other two constructions:

* *compare these sentences* :

He began working in his father's office when he had completed his university studies.

He waited until he had completed his university studies before he began working in his father's office.

He did not begin working in his father's office until after he had completed his university studies.

a) We started doing the washing-up
until the guests had left

b) After he had finished speaking I made
the suggestion

c) Before they had won the election they
didn't announce the changes en the Government

d) They didn't start applauding the actors
after the curtain had come down

√ e) They waited until their parents had gone out
before they started dancing.

hitch-hike: fer autostop
abroad: extranger
fortnight: quinze dies

had: havia

WAITED UNTIL + PAST PERF.

BEFORE + PAST

UNTIL AFTER + PAST PERF.

to rob: entrar en un lloc a robar
to steal: robar alguna cosa.
trip: sortida, excursió
journey: viatge

a.- We started doing the washing-up as soon as our guests had left
—
b.-I waited until he had finished speaking before I made the suggestion
—
c.-They didn't announce the changes in the Government until after they had won the election
—
d.-They waited until the curtain had come down before they started applauding the actors
-- They didn't...
e.-They started dancing as soon as their parents had gone out
--They waited until...

7.-*Write the story, putting the verbs in brackets into the Present Perfect or Simple Past. If two answers are possible, write the more likely one:*

Ann Jones is one of the most interesting people I (meet) have ever met: she's only twenty-five, but she (travel) has travelled to over fifty different countries. Five years ago, she (be) was a typist in Birmingham, but she (decide) decided to give up her job and see the world. Since then, her life (change) has changed completely.

The first time she (go) went abroad was seven years ago, when she (be) was just eighteen. She (take) took a boat to France and then (hitch-hike) hitch-hiked around Europe for five weeks. She (visit) has visited Europe many times since that first trip, of course, but this holiday (be) was the one which (make) made her start travelling. She (never forget) has never forgotten the excitement of those five weeks -although it was not all enjoyable. When she (be) was in Munich, somebody (steal) stoled her purse: she (lose) lost all her money, and (have) had to work in a restaurant for a fortnight. She (make) made some good friends there, however, and (return) has returned several times since then.

How did she find the money for her travels? After her first trip abroad, she (go) went home and (work) worked for two years, saving all the time. Now she travels continually, finding work when her money gets low. She (make) has made a lot of friends, she says, and (learn) has learnt quite a few languages. Although she (have) had occasional difficulties and often (be) was sick, she (never think) has never thought about giving up her travels. "The first time I (go) went abroad it (change) changed my life", she says, " and I (want) have wanted to travel ever since".

She has done → ella ha fet

She had done → ella havia fet

although: malgrat que

when: quan \ until: fins

after: després \ before: abans

steam : vapor

splitting : dividir

in a mess : estar desarreglat

almost : quasi

to warn avisar, advertir

people : plural

ever since : únic cas qe pot anar al final del complement de temps

Temps continus : l'acció té una durada

24.3.95

Put the verbs in these passages into the correct tenses

a) Over the centuries, man's way of life (be) changed by a relatively small number of discoveries and inventions. But changes (come) more and more often since the steam engine (be) invented in 1765. In just two hundred years, man (advance) from horse power and candle-light to aeroplanes and neon lamps. Our ideas about travel (change) completely since Daimler and Benz (build) the first petrol engine in 1885 and the Wright Brothers (make) the first powered flight in 1903.

b) Some people (say) that we live in the age of computers; but it (be) also correctly described as the atomic age or the space age. Today, a journey from London to Cairo (take) hours. Only a hundred years ago it (take) weeks. Today, men (think) seriously of going to Mars. Fifty years ago they only (dream) about it. Today we (produce) energy by splitting the atom. A century ago, no one (believe) it (can) be split. Technology (advance) so quickly that cars and televisions (be) out of date only a few years after they (be) made.

has been
have come
was invented
has advanced
have changed\built
made

say \is
takes
took \think
dreamt\ produce
believed\could
advances
Will be
have been

PROGRESS TEST

Choose the correct form of the verb in each case and choose the correct word (for, since or ago) in the context.

For / Since the last three days, I have been working / am working hard decorating our new house. When we have moved / moved in three days since, / ago, everything has been / was in a mess but now I have almost finished / have almost been finishing the job. Today I have been working / am working since / for breakfast and am not having / have not had anything to eat. Anne has brought / brought me a sandwich an hour ago / since but I have told / told her not to come into the kitchen. I have never forgotten / am never forgetting what happened / has happened several years since / ago when she has tried / tried to help me. I am not having / have not had many accidents for / since then but Anne has often been warning / has often warned me to be careful. She has warned / warned me again this morning at breakfast-time but I have been working / am working since / for four hours and nothing goes / has gone wrong. Damn! Now I dropped / have dropped the tin of paint. Has anything like that ever been happening / happened to you?

to hurry : accelerar
became : esdevenir

IV. Choose one of the answers below to fill in the blanks.

From 1846 to 1848 (48) .... a war between the United States and Mexico. After the war, Mexico (49) .... California to the United States. At this time about 800 people were living in San Francisco.

In 1850, California (50) .... the thirty first state of the United States of America. In 1848, gold (51) .... in the hills near San Francisco. After that, San Francisco changed completely.

In 1849, men (52) .... to San Francisco from all over the world. They were called "Forty-Niners" and they (53) .... gold. More than 500 ships arrived at San Francisco Bay. The men (54) .... the ships in the Bay and hurried into the mountains.

About 80.000 men moved to California in the Gold Rush. Some of these "Forty-Niners" (55) .... very rich. But most of them (56) .... nothing.

All kinds of people lived in San Francisco. Millionaires (57) .... beautiful, big houses on Nob Hill. Other people lived in small, bad houses.

(58) .... many laws. San Francisco was a wild city. People (59) .... a lot of whisky and smoked opium. They gambled and lost their money.

But San Francisco (60) .... at a considerable pace until it came to be the financial centre of Western United States.

48.- a) There had b) They had [✓ c) There was] d) It was
49.- a) took [✓ b) gave] c) got d) moved
50.- a) sold b) put [✓ c) became] d) lost
51.- a) found [✓ b) was found] c) stayed d) was
52.- a) became b) brought c) stood [✓ d) came]
53.- a) looked after [✓ b) looked for] c) looked at d) looked behind
54.- a) had b) put c) caught [✓ d) left]
55.- [✓ a) got] b) came c) went d) arrived
56.- a) didn't have b) have [✓ c) had] d) hadn't
57.- a) construct b) sold c) took [✓ d) built]
58.- a) There wasn't b) There wasn't [✓ c) There weren't] d) It weren't
59.- a) sell [✓ b) drank] c) dring d) buying
60.- [✓ a) grew] b) became c) stood d) fell

to shap: formar
to grind: fumió amb dificultat
inch: pulgada
layer: "estrato"
recognisable: identificable
to reach: abast

III. Read the following text and choose the correct verb form for each blank. Only one answer is correct.

THE POWER OF WATER

The work of water is recognisable everywhere. In one way or another it (59).......... the whole surface of the earth.

It is a well-known property of water that it (60).......... at 0°C. But what effect (61).......... on the earth's surface? Millions of years ago, solid layers of ice (62).......... the lakes and hills of Europe and North America. Glaciers formed the bare faces of the Alps. Water (63).......... and expanded in the crack of big rocks and (64).......... them down into smaller ones.

A Spaniard, Cardenas, was the first European to see the Grand Canyon. When he (65).......... into it in 1540, he (66).......... it as the work of water. The canyon was so deep that he (67).......... the Colorado River at the bottom. But how was the Grand Canyon formed?

As a river flows, it (68).......... particles of rock and silt. These particles (69).......... the course of the river, inch by inch, over the centuries. If you look at the sides of the Grand Canyon, you (70).......... the different layers of rock. The river at the bottom (71)..........through them all (72).......... its present course.

59. a) shaped [✓ b) has shaped]
c) was shaping d) shape

60. a) freeze b) is freezing
c) froze [✓ d) freezes]

61. a) did this property have b) had this property
c) this property has [✓ d) has this property had]

62. a) mould b) has moulded
[✓ c) moulded] d) were moulding

63. a) freezes b) didn't freeze
c) freeze [✓ d) froze]

64. [✓ a) broke] b) didn't break
c) were breaking d) break

65. a) see [✓ b) looked]
c) look d) break

66. a) didn't saw b) saw
[✓ c) didn't see] d) haven't see

67. a) can see b) cannot see
c) could see [✓ d) couldn't see]

68. a) picked up b) has picked up
c) is picking up [✓ d) picks up]

69. [✓ a) help to grind] b) helps grinding
c) has helped grinding d) helps to grind

70. [✓ a) can see] b) could see
c) could to see d) can to see

71. a) cuts [✓ b) has cut]
c) cutted d) cut

72. a) for to reach b) for reach
c) to reaching [✓ d) to reach]

divers : "buzo"
pump : bombes
sand : sorra
seabed : llit del mar
to suck up : aspirar
finding : descobrimer
to keep : restar

V. Choose one of the four options to fill in the blanks with an appropriate form of a verb.

Treasure under the sea

In 1707 the British Navy (61) .... a ship. Some time later, the HMS (= His Majesty Ship) Association (62) .... to the bottom of the sea near to the Scilly Isles, southwest of Britain (63) .... it. But it (64) .... until 1967 when divers (65) .... the ship again. They (66) .... to the surface many gold and silver coins as well as guns, spoons, bottles and many other interesting things.

Nowadays divers (67) .... with much more sophisticated machines. They (68) .... giant pumps and suction pipes: these (69) .... the sand and (70) .... other things on the seabed. The divers (71) .... these up and (72) .... them to the surface however they (73) .... a bell to bring up treasure from deep water. Usually, a diver (74) .... down in the bell and (75) .... a telephone (76) .... to the people in the ship: "Down a bit.........., left a bit .... That's it!"

61. a) sent b) gave
[✓ c) lost] d) flied

62. [✓ a) went] b) go
c) gone d) going

63. [✓ a) looking for] b) looked for
c) to look for c) look for

64. a) was b) were
[✓ c) wasn't] d) weren't

65. a) took b) found
c) met [✓ d) came across]

66. a) bring b) broke
c) bought [✓ d) brought]

67. [✓ a) work] b) play
c) use d) study

68. a) move b) work
[✓ c) use] d) travel

69. a) dissolve [✓ b) suck up]
c) heat d) eat

70. a) to leave [✓ b) leave]
c) leaved d) left

71. [✓ a) can pick] b) can to pick
c) picks d) to pick

72. a) fall b) try
c) watch [✓ d) take]

73. a) can use [✓ b) have to use]
c) want to use d) going to us

74. [✓ a) goes] b) walks
c) drives d) looks

75. a) have [✓ b) has]
c) had d) have got

76. [✓ a) to speak] b) speak
c) speaks d) speaking

V. Choose one of the four options of the verbs.

Finding oil

You can (49) .... oil in rocks 75 to 135 million years old. Most people (50) .... that oil (51) .... very small sea animals that (52) .... and (53) .... to the sea bottom. They (54) .... part of the sedimentary rock there. Later, other rocks (55) .... them and (56) .... them there until today. That (57) .... why you (58).......... oil under the ground on land and under the sea. Then, (59) .... oil, you (60) .... down through the rock and the oil (61).........., sometimes very fast.

49. a) hit [✓ b) find]
c) make d) bring

50. [✓ a) think] b) thinked
c) thinks d) to think

51. a) has b) develops
c) uses [✓ d) comes from]

52. a) got b) stood
[✓ c) died] d) crossed

53. [✓ a) fell] b) fill
c) fall d) fallen

54. a) were b) have
[✓ c) became] d) turned

55. [✓ a) covered] b) met
c) got d) moved

56. a) keeping b) keep
c) keeps [✓ d) kept]

57. a) was [✓ b) is]
c) it is d) will be

58. a) can still to find b) can't still find
[✓ c) can still find] d) to can still fin

59. a) get [✓ b) to get]
c) got d) getting

60. [✓ a) drill] b) try
c) make d) put

61. a) comes in b) comes down
c) comes from [✓ d) comes up]

COMPARATIVES AND SUPERLATIVES OF ADJECTIVES.

PARALLEL INCREASE

-Exercise 1. *Rewrite theses sentences in the same way as in the first example:*

a.If the particles are extremely small, they require a more powerful microscope to see them.
--The smaller particles require, the more powerful microscope to be seen

b.If the atom is very complex, its nucleus is larger.
--The more complex atom are, the larger nucleus they have

c.A substance is a better insulator according to how much air it encloses.
--The more air the substance encloses, the better insulaters are

d.The frequency of a wave becomes lower as the wave gets longer.
--The longer a wave gets, the lower the frequency gets

e.The amount of resistance offered by a copper wire depends on its thickness.
--The smaller the thicknes of a copper wire is ***the less*** resistance it has

f.The speed of sound changes according to the density of the medium through which it travels.
--The more the density of the medium is ***the faster*** the speed of sound will be

thickness : grosor

to behaved : comportar-se

COMPARATIVES AND SUPERLATIVES OF ADVERBS.

a **fast** and **hard** // **faster** / **harder**

Complete these sentences in the same way with the correct forms of **fast** and **hard**:

1 ***A*** If you worked harder I'd pay you more money.
B I work as hard as the others do. In fact, I work harder than some of them.

2 ***A*** I can run faster than my brother, and he's older than me.
B If you can run faster why didn't you beat him in the race yesterday?
A I fell down, and when I got up I ran as fast as I could, but I couldn't catch him.

b **better/worse than, as well/badly as**

Look at these sentences:

The children behaved **as well as** can be expected.
You're behaving **as badly as** your brother.

The horse runs **better** when the ground is soft.
It doesn't run **as (so) well** when the ground is hard.

Most people treat snakes **worse than** rats.
Most people don't treat rats **as (so) badly as** snakes.

Complete these sentences in the same way, using **as well (as), as badly (as), better** or **worse:**

1 Jack didn't play as well as usual today. I thought he'd beat Harry. Harry deserved to win, though. He certainly played better than Jack.

2 I've never known a boss who treated his staff as badly as he does. He treats them worse than animals.

3 The army fought better than could be expected in those difficult conditions. I don't think any soldiers in the world would have fought better.

4 My father drives worse than anyone I know. He's had three accidents already this year. Even my mother doesn't drive as badly as he does, and she's so bad that I won't travel with her.

Comparative Form

B. Complete these sentences by supplying the comparative form of the adjectives or adverbs in parentheses. Be sure to include the word than.

1. She speaks more rapidly (rapid) than I.
   (She speaks more rapidly than I.)
2. He prepares his homework more carefully (careful) than most students.
3. She works harder (hard) than her sister.
4. We stayed longer (long) than we expected.
5. Our troops fought more bravely (brave) than anyone expected.
6. The time passed more quickly (quick) than I expected.
7. The speaker spoke more loudly (loud) than was really necessary.
8. They arrived sooner (soon) than we.

9. The weather today is warmer (warm) than the weather yesterday.
10. John's car was much more expensive (expensive) than my car.
11. This contract is more satisfactory (satisfactory) than the previous one.
12. This street is even wider (wide) than the highway.
13. These exercises are more difficult (difficult) than some of the others.
14. The climate of Caracas is better (good) than that of Maracaibo.
15. Lil is much more clever (clever) than her brother.
16. This summer is hotter (hot) than last summer.
17. She spoke more rapidly (rapid) than I expected.

Supply the phrase as . . . as. *Also change all adjectives to their corresponding adverb forms where necessary.*

1. Reggie is as (tall) as his brother.
   (Reggie is as tall as his brother.)
2. Our apartment is as (large) as yours.
3. This street is as (wide) as Broadway.
4. Stephen is not as (intelligent) as his sister.
5. I don't get up every morning as (early) as my parents.
6. She sings as beautifully (beautiful) as she plays.
7. We came as quickly (quick) as we could.
8. We drove there as (fast) as we could.
9. He doesn't speak English as well (good) as his sister.
10. Helen doesn't prepare her homework as carefully (careful) as she should.
11. He doesn't attend class as regularly (regular) as he should.
12. He didn't arrive as (early) as we expected.
13. Sharon can do the work as easily (easy) as I.
14. He doesn't work as hard (hard) as the other students.
15. I came as soon (soon) as possible.
16. I don't believe that it is as (cold) today as it was yesterday.
17. Her pronunciation is not as (good) as yours.
18. We visit them as (often) as we can.

1. hardly : almost no (adv.)

adv + V
TO BE + adv
aux. + adv + aux + V

2. hardly + adj = not very

3. hardly ever + V = almost never

(such a = tal que)

almost : quasi

Superlative Form

Supply the superlative form of the adjective or adverb in parentheses. Be sure to use the word the.

1. She speaks the most rapidly (rapidly) of any of my friends.
(She speaks the most rapidly of any of my friends.)
2. This is the m. expensive (expensive) book that I own.
3. George is the worst (bad) student in the class.
4. The *Herald* is t.m. important (important) newspaper in the town.
5. Robin works the hardest (hard) of all the ballerinas in the troupe.
6. He is t.m. ambitious (ambitious) boy that I know.
7. Of the three brothers, Malcolm wakes up theearliest (early).
8. Rebecca swims t.m. gracefully (gracefully) of all the team members.
9. She is t.m. intelligent (intelligent) person that I know.
10. The story which you told was the funniest (funny) of all.
11. January is the coldest (cold) month of the year.
12. Which is the best (good) route from Miami to New York?

21.4.95.

30 hard/hardly

Compare these sentences:

She works very **hard**.
He had such a strange accent that I could **hardly** understand him.
He **hardly** ate anything for breakfast this morning. (He ate almost nothing.)

Hardly means 'almost not' or 'almost no'.
With an adjective, e.g. **hardly surprising, hardly** means 'not very';
hardly ever means 'almost never',
e.g. *A* **Rovers lost on Saturday.**
B **That's hardly surprising. After all, they hardly ever win.**

Complete these sentences with **hard, hardly** or **hardly ever**:

1 You shouldn't work so hard. You'll have a heart attack.
2 I'll just have a cup of coffee, thanks. I hardly ever eat anything in the morning, except on Sundays, when I get up late.
3 I got to the station so late that I hardly had time to buy a ticket and catch the train.
4 You'll pass the examination if you try hard.
5 It's hardly surprising that he failed. He did hardly any work.
6 He hardly ever does any work. I've only seen him look at a book once or twice since the beginning of term.
7 Is anything wrong with the wine? You've hardly touched it.
8 The British usually drink tea or wine with their meals. They hardly ever drink champagne except on special occasions.

a little : a small amount, but some   uns quants

little : not much, almost no   quasi be gens

a few : a small amount, but some

few : not many, almost no.

raisin : panses

cherries : cireres

crops : collites

corn : blat

wheat : blat de moro

c

1. She worked hard, ↑ gave her little encouragement
although her boss

2. Few people voted for him ; he's not popular

3. Would you like a little sugar in your tea ?

4. — been a few cases ..., but a few ..., is little ..

5. little
a few

6. few \ with little \ a few \ I see little sense ..

COMPARATIVES AND SUPERLATIVES OF COUNTABLE/ UNCOUNTABLE NOUNS.

C I

few, a few, little, a little

a **a few** and **a little**

Complete the dialogue, using **a few** or **a little**:

1. a few
2. a few
3. a little
4. "
5. a few
6: a little
7. "
8. a few
9. "
10. "

Joan What are you doing, Mum?

Mother I've invited __1__ friends to tea so I'm making __2__ cakes.

Joan What do you put in them?

Mother Well, flour, of course, and then I mix it with __3__ butter and __4__ sugar, and I add __5__ raisins. Then I pour __6__ lemon juice on top. Grandma always pours in __7__ wine instead, and she adds __8__ cherries instead of the raisins, but I prefer raisins with this recipe.

Joan What else are you going to give them?

Mother Well, I'll make __9__ sandwiches and there are __10__ biscuits in the tin. That should be enough.

b **few** and **little**

Complete the passage, using **few** or **little**:

1. few
2. little
3. few
4. little
5. few
6. "
7. little
8. few
9. "
10. little
11. few
12. little
13. few
14. little

Deserta is a poor country. It has __1__ natural resources and there is __2__ cultivable land. There are very __3__ towns and there is __4__ contact with other countries because there are __5__ good roads, __6__ navigable rivers, and there is very __7__ money available to import goods from abroad. Most of the people live in the country but there are __8__ farms and very __9__ farm animals. It is difficult to grow crops; the Desertans have __10__ corn or wheat and __11__ of them can afford to buy meat. Deserta receives very __12__ help from the outside world and __13__ governments are even aware that it exists. There is __14__ hope of any improvement in the situation unless Deserta receives foreign aid.

c **few, a few, little, a little**

Compare these sentences:

I **don't think** there's **much** use trying to persuade him; he's already made up his mind.

I **think** there's **little** use trying to persuade him; he's already made up his mind.

Rewrite these sentences, using **little**, **a little**, **few** or **a few**, as in the example above:

1 She worked hard, although her boss *didn't give* her *much* encouragement.
2 *Not many* people voted for him; he's not popular.
3 Would you like *some* sugar in your tea?
4 There have been *some* cases of stealing in the firm but *not many* workers were involved, and there is *not much* reason to be alarmed.
5 ***A*** You look as though you need *some* help.
B Yes, there are *some* problems I don't understand.
6 *Not many* teachers think that students can learn English *without much* effort, though *some* suggest this to give the students *some* encouragement. Personally, I *don't see much* sense in saying that.

bolts : cargol
nuts : femelles

COMPARISON OF MASS NOUNS.

EXERCISES

1) Fill in the blanks using "MORE" / "THAN".

1.- I drank much whisky more you did.
2.- I ate much rice more you.
3.- I received much information more you did.
4.- She has many telephone sets more you.
5.- He reads many books more I do.

2) Fill in the blanks using "LESS THAN" or "FEWER THAN".

1.- He smokes fewer cigarettes than me.
2.- He drinks less than I do.
3.- His car needs less petrol than mine.
4.- You need less money than me to buy a new car.
5.- You read fewer technical books than I do.

I C

3) Fill in the blanks using "AS MUCH AS" or "AS MANY AS".

1.- I read a much books as he does.
2.- You don't need as much petrol as I do for your car.
3.- He drinks as much as I do.
4.- A bike has as many wheels as a motorbike.
5.- My car has as many doors as that of Tom's.
6.- My car can go at as much speed as yours.
7.- His camera hasn't got as many aperture settings as yours.
8.- My radio has as many controls as your new one.
9.- There're as many pistons here as there.
10.- There's as much information here as there.
11.- There aren't as many different wires as you need.
12.- There're as many tools as you need to repair the engine.
13.- You can spend as much as you want.
14.- You can open and close the valve as many times as you need.
15.- You have as much time as he does to finish the exercise.

I C

4) Fill in the blanks using "AS LITTLE AS" or "AS FEW AS".

1.- He drank as little beer as his brother.
2.- He has as few dictionaries as her.
3.- We worked as little as he did.
4.- We didn't spend as little money as he did.
5.- This plastic bag has as few bolts as the other one.

I

5) Fill in te blanks using "THE MOST", "THE LEAST" / "THE FEWEST". C

1.- (+) I have the most pencils of the two.
2.- (-) Aluminium has the least density per metre cubed (m^3).
3.- (+) Lead has the most density per metre cubed of the five metals.
4.- (-) He ate the fewest apples of all.

doubt : doubt

dull : aburrides

take up : ocupar

booster : amplificador

1. most \ most \ most \ most of
2. most \ most \ most of \ most of
3. most \ most \ most of \ most of \ most of

aburrit : boring : alguna cosa
bored : estar aburrit una persona

wheat : blat de moro

Optical Fibres

• Fill in the blanks using: MUCH LESS, MUCH LESS, MUCH MORE
MANY MORE, MUCH MORE, MANY MORE, THAN, AS MUCH , AS OFTEN

1 Listening

TAPESCRIPT

ENGINEER: There's no doubt optical fibre systems have enormous advantages over existing transmission systems.

JOURNALIST: So we have heard. But what *are* these advantages?

ENGINEER: Well, first and foremost, they have a much higher capacity than copper wires. In other words, they can carry(1)________ information — telephone calls or data, it doesn't matter which.

Secondly, they have a potentially lower material cost. At the moment, production costs of optical fibre are relatively high, but this is only because mass production hasn't really started. In the long term, optical fibre will cost(2)______ to produce(3)________ conventional cables. Um, . . . another big advantage is their size . . . they take up(4)________ space. With conventional cable you need(5)________ ducts or pipes to carry the cable.

JOURNALIST: What about quality of transmission?

ENGINEER: Yes, they score very highly here as well. The signal doesn't need to be amplified (6)________ as with conventional cable, where signal loss means you need (7)________ repeaters or boosters — in fact, every 2 or 3 kilometres as opposed to every 20 kilometres.

Also, as far as quality is concerned, optical fibres don't suffer from interference or crosstalk(8)______ as conventional cable.

JOURNALIST: Anything else?

ENGINEER: Yes, they also have complete electrical isolation and therefore there's(9)________ security on the line — the data can't be corrupted or interfered with.

1. much more
2 much less
3. than
4. much less
5. many more
6. as much
7. many more
8. as often
9. much more

majoria \ la mayor part

most, most of

Notice the use of **most** and **most of** in these sentences:

Most bread is made from wheat. **Most** cakes contain sugar.
Most of the cheese you bought was bad. **Most of** the cakes you made were burnt.

When we are speaking generally, **most** means 'the greatest part of' (with mass nouns) or 'the majority of' (with count nouns). When we are talking about particular cases, e.g. **the cakes you made, most of** means 'more than half of' the thing which we are referring to.

Use **most** or **most of** instead of the phrases in italics in the following exercise:

1 *The majority of* people get married, although *the majority of* men pretend that they are not really in favour of it. Curiously enough *the majority of* divorced people in Britain marry again. In fact, *more than half of* them get married again within a year or two of the divorce.

2 *The greater part of* work is boring and *the majority of* people do boring jobs, but unfortunately if they did not work so hard, they would spend *more than half of* their time doing nothing or watching television, *the greater part of* which is a waste of time, anyway.

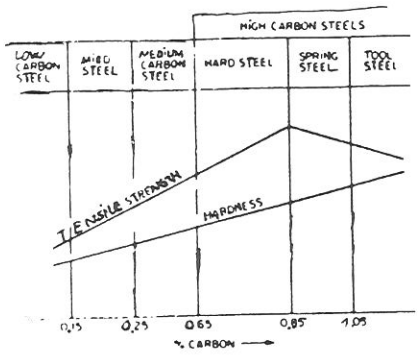
3 When I started teaching, the *majority of* teachers said we should not talk about provocative subjects in class. The trouble is that *the majority of* interesting subjects are provocative so *more than half of* the discussions we had were dull. But *more than half of* the younger generation of teachers believe in free discussion. This is all right, except that *the majority of* them seem to belong to political parties and spend *more than half of* their time trying to convert the students to their point of view.

Determiner
MOST + (Adj) + NOUN
Most + ~~The~~
~~My~~
~~These~~
~~Them~~

Pronoun
MOST OF + The
My
These
Them
which
whom

II.- Choose the right answer after reading the text and looking at the chart carefully.

TENSILE STRENGTH & HARDNESS.



In engineering, it is important to know the tensile strength and the hardness of different alloys. The table above compares the tensile strength, the hardness and the carbon content of some common steels.

Hardness: This is the ability to withstand *abrasion*.

Low carbon steel is not very hard. It is (22) the softest of the steels. Mild steel is (23) harder than low carbon steel. Medium carbon steel is even harder. The high carbon steels are (24) the hardest. Hard steel is not (25) so hard as spring steel. Tool steel is the hardest. Among these common steels, hardness is in proportion to their carbon content. (26) the greater their carbon content, the greater their hardness.

Tensile strength: This is the ability to withstand *tension*.

Low carbon steel is not very strong. It is (27) the weakest of the steels. Mild steel is (28) stronger than low carbon steel. Medium carbon steel is even stronger. The high carbon steels are (29) the strongest. However, their strength is not always in proportion to their carbon content. Some tool steels are not (30) as strong as some hard steels. Below 0.85 % carbon, (31) the greater their carbon content, the stronger they are. Above 0.85 % carbon, (32) the greater their carbon content, the weaker they are.

22.- a) the hardest [✓ b)] the softest
c) the least soft d) the most soft

23.- a) as hard as b) less hard than
[✓ b)] harder than d) more hard than

24.- a) so hard [✓ b)] the least hard
c) the most hard d the hardest

25.- [✓ a)] so hard as b) less hard than
c) as hard than d) less harder than

26.- a) the less / the greater b) the greater / the less
[✓ c)] the greater / the greater d) the less / the least

27.- [✓ a)] the weakest b) the least weak
c) the strongest d) the less weak

28.- a) more strong that [✓ b)] stronger than
c) more strong than d) weaker than

29.- a) the more strong b) the least strong
c) the most strong [✓ d)] the strongest

30.- a) as strong than b) strong as
[✓ c)] as strong as d) as stronger as

31.- [✓ a)] the greater / the stronger
b) the stronger / the greater
c) the greater / the greater
d) the greatest / the strongest

32.- a) the weaker / the greater [✓ b)] the greater / the weaker
c) the weaker / the weaker d) the greatest / the weakest

Answer these questions according to the chart shown above:

33.- Which is harder?
a) mild steel b) medium carbon steel
c) low carbon steel x [✓ d)] tool steel

34.- Which steel has more carbon content than mild steel but less than hard steel?
a) low carbon steel b) spring steel
x [✓ c)] medium carbon steel d) tool steel

35.- Which steel is one of the strongest but is less hard than spring steel?
a) tool steel X [✓ b)] hard steel
c) mild steel d) spring steel

36.- Which steel is one of the weakest but a bit harder than low carbon steel?
X [✓ a)] mild steel b) hard steel
c) medium carbon steel d) spring steel

OTHER WAYS TO INDICATE COMPARISON AND CONTRAST:

WAYS TO INDICATE COMPARISON:

a-Apart from the patterns already known by you (comparatives and superlatives), there are also some expressions that indicate different degrees of comparison, which modify or specify the comparison.
Remember that "very" CANNOT be used with comparatives; instead, we use such particles as:

That machine is | ***slightly / alittle / a bit*** | *more modern.*
somewhat
rather *(not "quite")*
much / far
considerably

Look at this table:

~~VERY~~

considerably far much	better –	to indicate a great difference
somewhat rather	better –	to indicate a medium difference
slightly a little	better –	tc indicate a small difference

Here is a table of the most common words expressing quantity.It may be of some help to remember them.

U		C	
+ all	the current	+ all	metals
most	of the gain	most	systems
* too much	voltage	* too many	problems
* much	copper	* many	advantages
* some	information	* several	types
* a little	resistance	some	cells
enough	quality	* a few	volts
little	equipment	enough	functions
− no	amplification	few	companies
		− no	transistors

b) Other ways of expressing comparison:

-to be similar to
-to be (almost) like
-to resemble
-to be close to

c) Comparing similarities :

-Both... and (used to list the qualities or attributes of things)
-Either ... or (used where there are different possibilities)
Positive verb → **-Neither... nor...** (used where there are no alternatives)
cayit
-In comparison with
-Compared with
-not only... but as well / also (used to state similarity)

1. a. Not only water is odourless but also colourles
   b. Both

odourless: inodoro
colourless: incolor
either nor: ni aun tampoco
not only ... but also: no solament, sino també

e.g. Both the Carnot cycle and the standard cycle involve the processes of compression and expansion.

Neither the Carnot cycle nor the standard cycle can be reproduced with the actual equipment.

In comparison with /Compared with the standard cycle, the actual cycle is less efficient.

Copper is not only malleable, but ductile as well (or: "Copper is not only malleable, but also ductile").

Copper and aluminium are both good conductors.Therefore, either copper or aluminium can be used in electrical wires.

-**Exercise 1.***Make statements using* **both ...and, either...or, neither ... nor,** *and* **not only ... but also***:*

a.Water / odourless / colourless :
b.Elements can be - solids / liquids/ gases :
c.Copper, lead / not magnetic :
d.solids / definite shape, definite volume :
e.nylon / tough, inexpensive :
f.liquids, gases / no definite shape :
g.Insulators can be made of / glass, porcelain, different forms of plastic :

-**Exercise 2.***Use these notes to help you make sentences using*:

either...or ...(or...)
neither ...nor
not only...but also
both...and

Example:
energy-cannot be created
-cannot be destroyed
(neither...nor)
--***Energy can be neither created nor destroyed***.

1.ions-can be negatively charged
-can be positively charged
(*either...or*)

Ions can be either negatively charged or positively charged.

2.steel-can be hardened
-can be tempered
(*not only... but also*)

Steel can be not only hardened, but also tempered.

3.hydrogen-can be produced by iron and hydrochloric acid
-can be produced by zinc and hydrochloric acid
(*both...and*)

Hydrogen can be produced both iron and hydr — and zinc . . —

4.metals-can be ferrous
-can be non-ferrous
(*either...or*) Metals can be either ferrous or non-ferrous

5.electric current-can be alternating current
-can be direct current
(*either...or*)

Electric current can be either alternating current or direct current

6.electricity-can heat a wire
-can have a magnetic effect
(*both...and*) Electricity both can heat a wire and can have a magnetic effect

7.vector quantities-have magnitude
-have direction
(*not only...but also*) Vector quantities is not only have magnitude but also have direction

8.gold-not cheap
-not common
(*neither...nor*) Neither cheap nor common gold will be.

9.paper-not strong
-not rigid
(*neither...nor*) Neither strong nor rigid paper is .

WAYS TO INDICATE CONTRAST.

-Exercise1. *Rephrase these sentences without changing their meaning*:

a.Although he was strong, he could not break down the door.

--In spite of his strength, he could . . . ________________.

b.He makes careless mistakes, in spite of his knowledge of the subject.(use "a lot about")

-- ______________________ although ____________________.

c.Although he is not very experienced, he is not the person we are looking for for this job.

--In spite of his ______________________________________.

d.Although DDT is banned in many countries, its effects are still being felt.

--Despite ____.

e.Even though he works hard, he doesn't earn much.

--In spite of ____.

f.Despite being a liquid, mercury is a metal.

--Although ____.

90 although, even though, in spite of; however, nevertheless, all the same

Compare these sentences:

Although he was tired, he went on working.
Even though he was tired, he went on working.

In spite of being tired, he went on working.
In spite of his tiredness, he went on working.

He felt tired. **However**, he went on working.
He felt tired. **Nevertheless**, he went on working.
He felt tired. **All the same**, he went on working.

Although is followed by a subject and verb, **in spite of** by a gerund or a noun.
If we use **however**, **nevertheless** or **all the same**, two sentences are necessary.
All three could come at the end of the sentence,
e.g. **He went on working, however.**
We usually prefer to use a less formal construction, with **though**,
e.g. **He went on working, though.**

1 Rewrite the sentences with **although** into sentences using **in spite of**, and vice versa. Use an appropriate noun after **in spite of** if you know one; if not, use a gerund form:

1 In spite of being an experienced driver, he drove carelessly.
2 Although he was strong, he could not break down the door.
3 In spite of being able to speak several languages, he's a terrible teacher. (Use **can**.)
4 Although they protest, the Government won't do anything.
5 Although she was very distressed, she smiled bravely.
6 In spite of his laziness, he is very intelligent.
7 In spite of her rudeness, I still like her.
8 In spite of his wealth, he still lives in that old house.
9 Although he played well, he lost the game.
10 The plane took off on time, although it was foggy.

OVERVIEW OF COMPUTER TYPES:

1 Just 30 years ago, the term computer almost always referred to the large and powerful computer which filled an entire room. Today, upon hearing the word computer, some people still think first of this large mainframe. Others, however, immediately think of the microcomputer, popularly called the personal computer, whose use is increasing daily. We will discuss the different kinds of computers in use today in this chapter.

TYPES OF COMPUTERS: DIGITAL AND ANALOG

2 There are two basic types of computers—the *digital* computer and the *analog* computer. These two types of computers are very different; while the purpose of the digital computer is to count, the purpose of the analog computer is to measure. The digital computer counts by utilizing a series of digits to represent numbers. In contrast, the analog computer uses analogy to represent numbers; it represents numbers by measuring such things as electricity or temperature. The speedometer in a car works in much the same way as an analog computer works.

3 Compared to the analog computer, the digital computer is more accurate and more versatile. Unlike the digital computer, which has a very large number of applications in a variety of fields such as business and government, the analog computer is used mainly for scientific applications in laboratory environments.

TYPES OF DIGITAL COMPUTERS: SPECIAL PURPOSE AND GENERAL PURPOSE

4 There are two main types of digital computers—the special purpose and the general purpose computer. As its name implies, the special purpose computer is designed for a single and unique purpose. Examples of special purpose computers are those in air traffic or military defense systems. In contrast, the general purpose computer, as its name also implies, can have a variety of applications in different areas. This is possible through the use of appropriate software. Just as a person is able to change clothes, a general purpose computer can change its "clothes," that is, its particular application, depending on the instructions it receives. Therefore, the same general purpose computer can be used for business, scientific, educational, or even entertainment purposes.

TYPES OF GENERAL PURPOSE COMPUTERS: MICROS, MINIS, MAINFRAMES

5 The differences between computer types are not limited to the contrast between the analog and digital computers on the one hand, and the classification of digital computers into special purpose and general purpose machines on the other hand. General purpose computers are also divided into different types, depending upon the computer's power, speed, and size. There are three main types of general purpose computers—the small microcomputer, the medium-sized minicomputer, and the large mainframe. In spite of the fact that these computers are different, they all have the same basic components—a processor unit, input and output devices, and secondary or auxiliary storage units. All computers also carry out the same basic functions.

THE MICROCOMPUTER OR THE PERSONAL COMPUTER

6 The microcomputer, or personal computer, is the smallest of all general purpose computers. The average "micro," or PC, as it is also called, is a self-contained unit, and has its own CPU and input and output devices (see illustration 9.1). The personal computer is designed to be used by only one person at a time. These computers are also "desk-top" computers and are able to fit on top of a desk or table. While personal computers may vary in size, most are fairly portable and can be carried from place to place. In fact, some personal computers, called briefcase computers, are so small and portable that they can be carried anywhere. The microcomputer is also designed to be "user friendly," that is, easily understood and operated by the average person. Although other languages are available for micros, BASIC is the most frequently used language for personal computers.

7 Micros are currently used for different purposes in many fields including business, the home, and education, as discussed in Chapter 3. Because of this, the same computer might be used for performing complex business analyses, for word processing—the use of special programs in order to produce neat and accurate typed documents—or for playing games. To be more specific, in business, personal computers can do many things, including computing payrolls, predicting a company's future growth by carrying out complex analyses with financial planning programs, or producing colorful charts and graphs. In the home, micros can be used for such things as balancing checkbooks, typing letters, or playing games. Educational uses of micros include *computer-assisted instruction* (CAI), which helps students learn or practice information, and type homework. As we learned earlier, microcomputers can even help artists draw pictures, and musicians compose music.

INPUT DEVICES FOR MICROCOMPUTERS

8 The microcomputer system, like all other computer systems, consists of a CPU, input/output devices, and auxiliary storage. However, because of the physical size of the microcomputer, some of these devices may be very different from those used with the larger computer systems. Input devices for the personal computer include several different things. The most common means of inputting data into a micro, like any other computer, is with a keyboard. The *computer keyboard* looks like the keyboard of a typewriter, but sends special signals to the CPU of the computer. Several other input devices are used very frequently with microcomputers. These devices, most of which are also available for use with mainframes, although used much less frequently, include joysticks, light pens, and touch screens (see illustration 9.2). *Joysticks* are very popular input devices and are used for playing computerized games. A *light pen*, like a joystick, is an input device attached to the computer. In fact, it looks like an ordinary pen. When aimed at the screen, however, it detects light and transmits it to the CPU of the computer. Unlike the keyboard, no typing is necessary when using a light pen. Light pens are especially helpful for drawing pictures with a computer. Another means of inputting information to the computer is the *touch screen*. The touch screen is sensitive to touch. It is very easy to use, as lightly touching the screen is all that is needed to give instructions to the computer. Another input device for micros is a *voice input device*. Voice input devices allow commands to be spoken directly to the computer. While voice devices are used today, they are not as common as the other input devices for micros. They are also very expensive. In the future, however, voice input might well replace the keyboard and be used to command robots as well.

OUTPUT DEVICES FOR MICROCOMPUTERS

9 The most commonly used output devices for microcomputers are video monitors. Video monitors resemble television sets but receive the information to be displayed from the computer itself (see illustration 9.3). Television sets can also be connected to personal computers and used as video devices. Printers, both of the letter quality and dot-matrix type described earlier in the text, are also common output devices for personal computers.

AUXILIARY STORAGE FOR MICROCOMPUTERS

10 The auxiliary storage of a microcomputer is quite different from the auxiliary storage of larger computers. Personal computers generally store data on diskettes or floppy disks. These disks, which are made of a flexible material, come in several sizes. Disks of 8 inches (8"), 5 and ¼ inches (5¼"), and 3 and ½ inches (3½") are the most common (see illustration 8.3). In order to access the information stored on the diskettes, the floppy disks are inserted into disk drives. These disk drives, like the rest of the micro itself, are usually quite small. Older microcomputers, unlike newer models, do not use floppy disks for auxiliary storage, but instead use cassette tapes. In addition, another type of auxiliary storage is available for personal computers. This is the hard disk of the type mentioned earlier in this text.

MICROCOMPUTER SYSTEMS

11 Currently, the most typical personal computer systems are composed of the CPU, a keyboard, a video monitor and two disk drives. A printer is very often included in the typical microcomputer system. Although the components of the system may be the same, individual systems may be configured, that is, set up, in a number of ways. For example, the CPU, keyboard, monitor, and disk drives may make up one complete unit. In another system, the CPU and the keyboard may be together, with the monitor and the disk drives set up separately. In still another system the CPU and the disk drives may be combined into one component, with a separate monitor and a separate keyboard (see illustration 9.1).

1) Read the text.

Integrated circuits (ICs) are probably the most important components in electronics today. An IC is a complete electronic circuit, often no larger than a discrete transistor, integrated within a single chip of silicon. This type of IC is known as monolithic IC. It can contain hundreds of transistors, diodes, resistors and capacitors, and all its components and their connections are manufactured in the same production process.

Monolithic integrated circuits have substantial advantages over discrete circuits. One major advantage of ICs is their small size. Thanks to miniature circuitry, complex systems such as computers have reduced their physical dimensions. Low cost is another advantage of integrated circuits. Many circuits are manufactured simultaneously. Consequently, the cost of each circuit is lower. The cost of processing a single semiconductor chip is then cmparable to that of a single transistor. But perhaps the main advantage of integrated circuits is their high reliability, i.e. they fail less often than the discrete veersion of the same system because they require much fewer solder joints and mechanical connections. Therefore, ICs usually operate for longer periods of time without breaking down.

2) Decide which of these titles best summarizes the major idea of the text:

a) ICs are essential modern electronic devices.
b) The integrated circuit and its advantages.
c) Advantages and limitations of integrated circuits.

3) Decide whether these statements are TRUE or FALSE, and make all the necessary changes in false sentences to turn them into true statements.

a) An IC can be as small as a discrete transistor.
b) The manufacture of a silicon chip is much more expensive than that of a transistor.
c) Discrete circuits are much more reliable than ICs.
d) ICs are much cheaper than discrete circuits.
e) ICs require as many solder joints and mechanical connections as discrete circuits.
f) Discrete circuits operate without breaking down for shorter periods than ICs.

4) Complete the following information:

The three main features which determine a monolithic integrated circuit are:

a) Many components are assembled....
b) An IC functions as.....
c) Many ICs are fabricated....

The three main advantages of ICs are:

a)______________________________________because.....
b)______________________________________because.....
c)______________________________________because.....

5) Translate these sentences into English.

1.- Ese material es el mejor conductor de electricidad aunque también es el más caro.

2.- Estos son algunos de los materiales semiconductores más ampliamente utilizados (use "widely") a pesar de su elevado coste.

3.- Esta es la forma más común de representar un diagrama de circuitos. Sin embargo, no creo que sea la mejor.

4.- A pesar de que el estudiante separó las dos placas de metal con un material aislante, el dispositivo falló mientras estudiaba la resistencia eléctrica de unos conductores.

5.- Los semiconductores son materiales muy importantes en la electrónica, aunque nuevos materiales harán posible el desarrollo de la electrónica.

6.- Tanto el silicio como el germanio son materiales semiconductores, aunque el silicio es el semiconductor más utilizado para circuitos integrados.

7.- Tanto los resistores como los capacitores pueden tener o bien un valor fijo o bien variable.

8.- No podía ver la diferencia entre lo circuitos integrados y los discretos.

9.- En el laboratorio no había ni un resistor ni un transformador.

10.- A pesar del hecho de no ser un estudiante de ingeniería no sabía mucho de electrónica.